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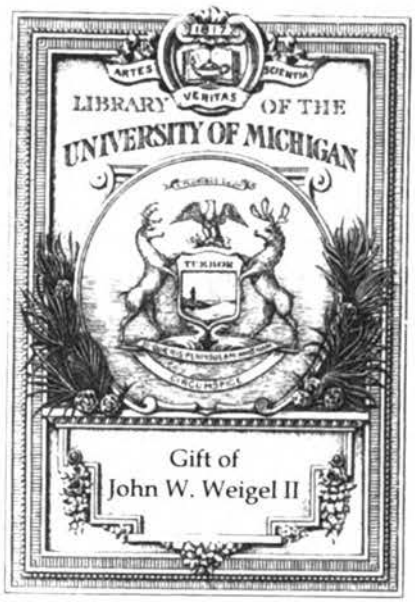

MAURY'S NEW

ELEMENTS OF GEOGRAPHY

FOR

PRIMARY AND INTERMEDIATE CLASSES

BY

M. F. MAURY, LL.D.

NEW YORK :: CINCINNATI :: CHICAGO

AMERICAN BOOK COMPANY

PUBLISHERS' PREFACE

MATTHEW F. MAURY won fame not merely as a geographer, but as a scientist. It was in recognition of his work in making geography a science, that every nation of Europe honored him with degrees, decorations, and medals, and that Humboldt, the great naturalist, asked Prussia to add to these a duplicate of the Cosmos Medal of Science, which had been given to Humboldt himself.

In his series of geographies, Maury refused to follow the plan of all the accepted text-books of that day. His plan was to present, in simple words and in the form of a story, interesting facts about the different people of the earth, their homes, their industries, and the lands where they live; and at the same time to call attention to those physical laws which largely determine the condition, the character, and the industries of a people. As he himself expresses it: "While the author has reproduced in the pupil's mind the same vivid pictures of the various parts, places and objects of the globe, which as an eye-witness he himself retains, he has constantly aimed at pointing out geographical laws, and at giving learners glimpses into the terrestrial machinery."

When published, these geographies were such a radical departure from the old methods, that many teachers were not prepared to accept them; but leading educators have gradually come to Maury's position, and today the principles that he advocated are endorsed by the Committee of Fifteen of the National Educational Association.

The special features to which attention is called are:

1st. *The Home, the Center of Thought.*—The study of the world is begun at the home of the pupil, and other countries and places are presented in their relation to it.

2d. *The Earth as a Unit.*—In the first thirty pages the earth is presented as a unit, and in the pages that follow, this conception of it is at all times kept before the pupil. The continents are then taken up more fully, and after the pupil is familiar with the details of each continent, a review is given which leads him to look at the continent as a whole and in its relation to the earth as a unit.

3d. *Relief Maps.*—Political maps teach the names of political divisions, of mountains, rivers, etc., all of which are purely arbitrary. After these names are learned, relief maps follow. These picture to the eye the physical features of the continents. By locating upon the relief map those features with which he is already familiar, the pupil can see the physical reasons for many of the facts that he has learned. If preparatory oral lessons are given, the relief map should then be used first.

4th. *The Earth as the Home of Man.*—The idea of the earth as the home of man is the chief thought of the book. The full-page colored illustrations serve to accentuate this thought by giving vivid pictures of the people of each continent and of the homes in which they live.

5th. *The Lessons.*—Each lesson presents interesting facts in the form of a story to be read by the pupil. The teacher may talk with her class about each lesson, and may ask her own questions to develop thought and fix important facts in the child's mind.

6th. *Illustrations.*—The illustrations are all from photographs and are accurate. Each picture teaches some definite idea, and the descriptive text under many of them makes the pictures an integral part of the lessons.

The colored relief maps are used by permission of Mr. C. L. Patton, who designed them and who also selected the new illustrations and planned the course of instruction which they embody. We take pleasure also in acknowledging the valuable suggestions received from several distinguished educators, and in thanking our correspondents in all the leading countries of the world who have furnished many of the photographs that appear in this volume.

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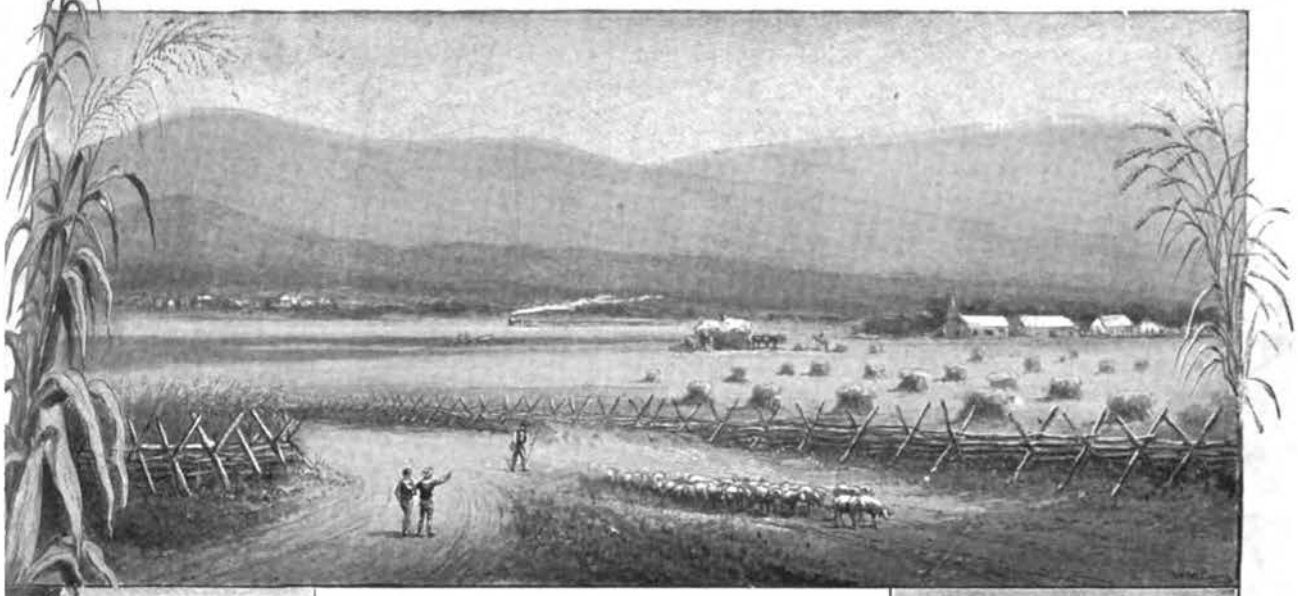


LESSON I.

WHAT GEOGRAPHY MEANS.

1. Homes.—Some boys and girls have homes in the country. The two boys that you see in the picture live in a pleasant valley near the mountains. These boys see around them fields of wheat and corp. They see a wagon drawn by oxen, carrying wheat to the barns. A man is driving a flock of sheep along the road, and a train of cars is approaching the village. Far away in the distance, they see the high mountains.

Some boys and girls have homes in cities. They may see long streets like the one in the left-hand picture, and other streets

g in every direction. On some of these streets there are stores; on others there are homes **people live;** passing through the streets are street cars, wagons, and carriages, and on the **ks busy** people are going and coming.

e boys and girls have homes near the seashore. They may see the blue waters and the **aves dashing** against the rocks or rolling up on the sandy beach.

hildren living in different places may see very different things. But all these things **the earth.** The mountains, the sea, the fields, the gardens, the woods, the dusty roads, **l streets,** the land on which our homes are built, are all parts of the earth.

2. The Earth is very large. Near our homes we can see only a small part of it. When we go away from our homes in any direction, we see other parts where other people live. These people may be very different from us, and their homes quite unlike ours. Everywhere we find them doing some kind of work, which may also be quite different from the work that we do.

The story about the different people that live on the earth, about their homes and what they do, is called **geography.**

For Recitation.—What can you see in the first picture? In the picture on the left hand? In the picture on the right hand? Have you ever visited the country, the city, or the seashore? What were the people doing there? What kinds of houses did you see? What plants or animals? Can you think of some place that you would like to visit and learn about? What must you study in order to learn about these places?

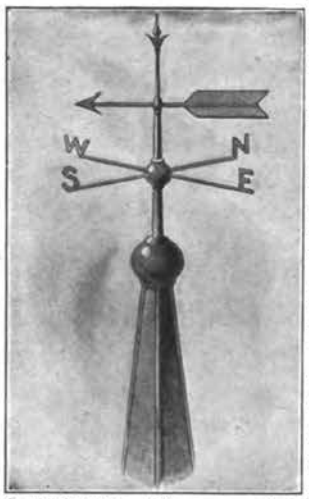
LESSON II.

DIRECTION.

Preparatory Oral Work. — Impress carefully upon the minds of pupils the necessity of *fixed*, unchangeable points of direction, which can be understood by everybody.

Ask the pupils to point to the right; to the left; before them; behind them. Then show that all these directions are variable in their meaning. Thus: Who sits on your right hand? On your left? In front of you? Behind you? Turn round. Who is on your right now? Behind you? Before? On your left? Point to the right. Turn round. Point to the right now. Does pointing to the right, to the left, in front, or behind always give you the same direction?

Having shown the indefiniteness of such expressions for directions as right, left, before, behind, pass on to a thorough drill on the fixed directions. Let this be repeated daily, until every pupil can point, without hesitation, to the four principal directions, and to the four half-way directions.



A weathervane.—The arrow always points in the direction from which the wind blows.

Ask on which side of the schoolroom the sun rises. On which side it sets. Which is the east side of the pupils' desks? Which the west? The north? The south? Who sits to the east, west, north, and south of them? In what direction the teacher's desk is? In what directions the children go from school to their homes; and in what directions they come from their homes to school.

Let them tell in what directions the most familiar objects, such as the church, the post-office, or the city hall, are from their school and homes.

Vary the drill and exercises. In taking up the drill work in connection with different lessons, avoid as far as possible asking the questions in exactly the same words.

This photograph was taken at noon; the car tracks run north and south. Notice that at noon shadows always fall toward the north.

1. What Direction Means.—Suppose you are going for the first time to visit the home of a friend. One question that you will ask before starting will be, "Which is the way?" If you do not know the way you may be lost.

Now the way to a place is called direction.

And when we are learning about any people or places, one of the things we wish to know is, in what direction they are from us.

We may learn about direction from the sun. The part of the sky where it rises is called the **east.** So if, some bright morning, we are walking with the sun shining in our faces, we cannot help knowing that we are going toward the east.

The part of the sky where the sun sets is called the **west.** The west is just opposite the east. If we walk so that the setting sun shines in our faces, we are going toward the west.

If we walk with the morning sun upon our right sides, we shall be going toward the **north.**

If we should meet a boy walking in the opposite way, he would be going toward the **south.**

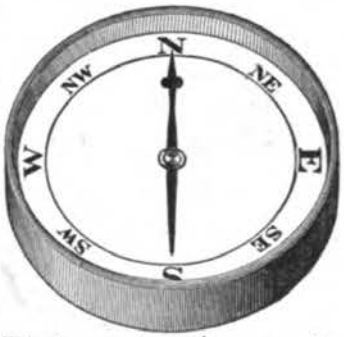
The sun, we see, helps us to learn the principal directions, **north, south, east** and **west.** These are what we call fixed points.

If the place to which we are going lies half-way between the north and east, its direction is **northeast.** If it is half-way between north and west, the direction is **northwest.** If the place is half-way between south and east, the direction is **southeast.** And if it is half-way between south and west, the direction is **southwest.**

From what we have now learned we see that when the sun shines it is easy to tell in what direction we are going. But there is something that shows direction even better than the sun.

Sometimes people are days and days at sea without seeing the land, and with nothing but sky above them and water all around. Often the sky is covered with clouds, and the sun cannot be seen. How do they know which way to go? They use what is called the **compass.** In it there is a little needle made of steel that always points toward the north.

With a compass, therefore, we can always tell which way is north. And if we know where north is, we can also tell where the south, the east and the west are.



This is a small pocket-compass. The compass that is used at sea is much larger and finer.

The Indians and hunters who catch animals for their fur live a great deal in the forests. Often there are no roads to guide them. Sometimes it is very cloudy, and they cannot see the sun. They are said to have a very curious way of finding out then where the north is.

Moss grows best in shady places, and generally grows thickest on the north side of the trunks of trees, because the sun does not shine much on that side.

The hunters and Indians, therefore, look to see which side of the tree is covered with moss. They know that the mossy side is the north side. Moss is to them as good a friend as the compass is to the sailor.

At night it is easy to find one's way if the stars can be seen. There is one star which is always in the north. We can see it in the picture.

The North Star and the Dipper.

The single star is called the North Star because it is always in the north. We find it by the help of two bright stars in the Great Dipper. They are called the Pointers.

For Recitation.—What do you mean by direction? What are the chief directions? How can you tell where the east is? Where is the west? Where is the north? Where is the south? What other points of direction are often spoken of? What shows direction better than anything else?

LESSON III.

DISTANCE.

Preparatory Oral Work.—Have pupils, using twelve-inch rulers, draw lines on the board one foot long; two feet long; one yard long, etc. Draw in various directions lines of different lengths, and ask how long each is. Test the correctness of answers with the ruler. Have children draw lines by guess, and test the accuracy of their guesses.

Have the pupils learn what two places in the neighborhood are about one mile apart; in a city, how many blocks there are to a mile. Have pupils tell about their walks or drives, noting distance and time.

1. What we Mean by Distance.—It is not easy to find a place if we know only in what direction it is from us. We should know also how far away it is, or the distance we shall have to go before reaching it.

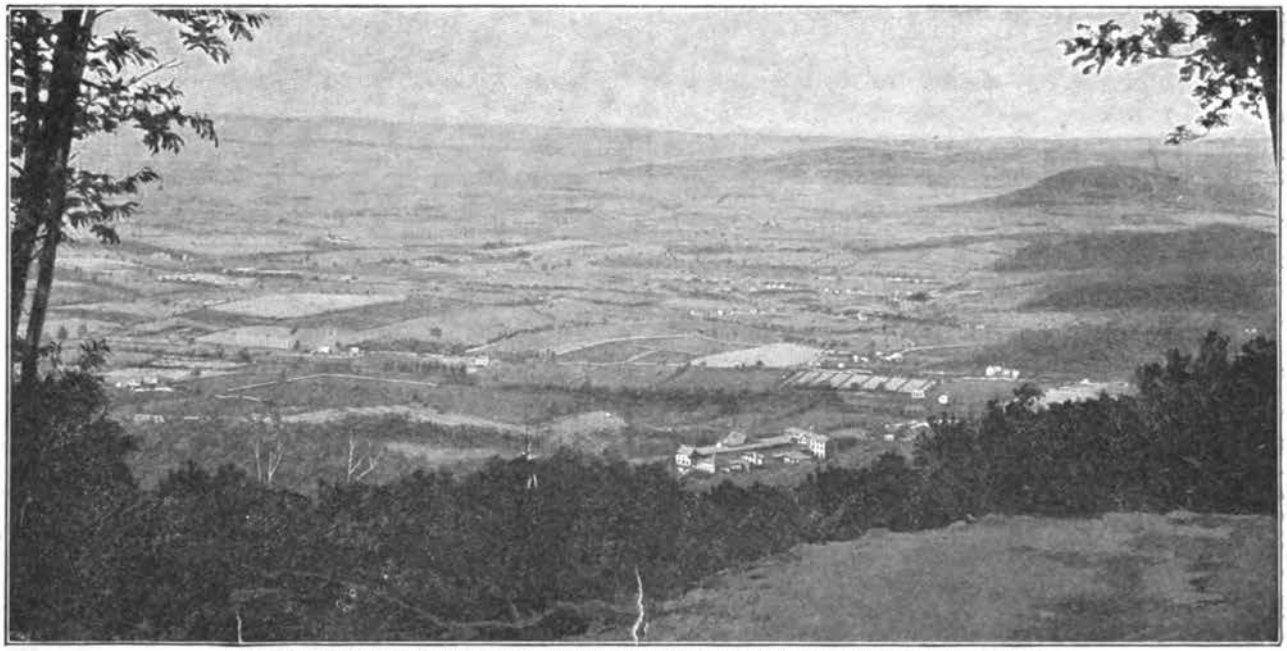
If we know only that the house of a friend is east of ours, we cannot tell just where it is. But if we know that it is east of ours, and also how far east, then we can tell very nearly where it is.

The honey-bee knows exactly in what direction it must fly when it wishes to go home, and it knows also the distance, or just how far it must fly.

The mother bird that has her little ones in a nest in the tree, knows not only in what direction she must fly, but how far she must fly, so as to get back to the nest.

The bees and birds all know direction and distance by instinct. We have to learn.

We have already seen how we learn about



View of a broad valley in Maryland. Notice how distance affects the size and appearance of objects.

direction. Let us now see how we learn about distance.

Very often we do not need to be exact. It is enough to know that a place is "very far off" or "very near." But sometimes we must know just what the distance is. To find out this we **measure.**

How do we measure? We measure with foot rules and yard sticks and tape measures. You know how long an inch is. Twelve inches are called a **foot.** Three feet make the measure that we call a **yard.** Five and a half yards make what we call a **rod.**

With these measures we can easily find out short distances. We can see how long the schoolroom is, or how long and how wide the playground is.

But for very long distances we must have very long measures; and so we call the distance of 320 rods one **mile.** We can walk a mile in about twenty-five or thirty minutes. So if it takes us half an hour to walk from our home to school, the distance is about a mile.

For Recitation.—If we wish to go to any place, what should we know besides the direction? What is meant by the distance between two places? How do you measure short distances?

Pupils should be required to memorize the following table:

12 inches are one foot.	5½ yards are one rod.
3 feet " " yard.	320 rods " " mile.

LESSON IV.

MORE ABOUT DIRECTION AND DISTANCE.

Preparatory Oral Work.—Draw on the board an oblong like the teacher's desk. Let the children place objects on the desk while you put marks on the plan to represent the positions of these objects. Put marks on the plan and have pupils put objects on corresponding places on the desk. Do the same with pupils' own desks.

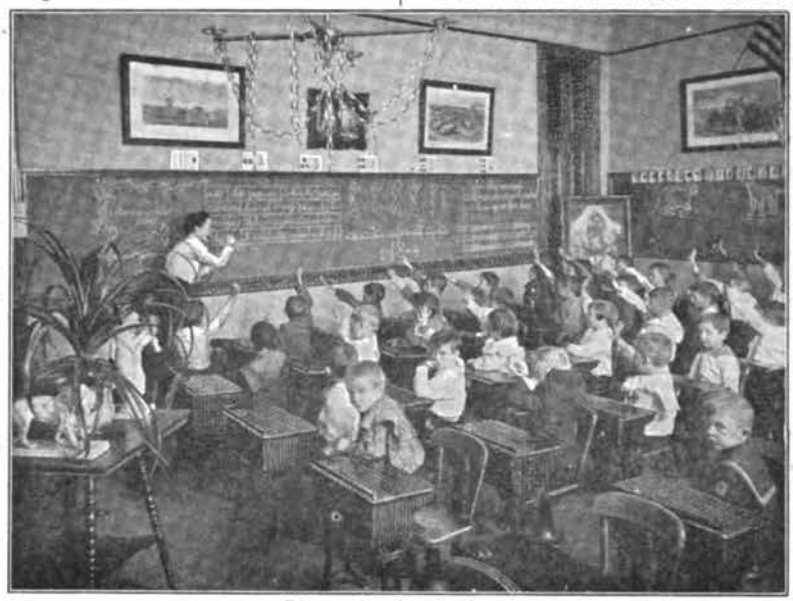
Draw a plan of the room on the board. Make the top north. Have pupils stand in various places, and mark these places on the plan; then put marks on the plan; and let pupils stand at places in the room corresponding to these marks.

Measure the room with a tape measure, and draw on the board a plan on the scale of an inch to a foot. Have pupils draw on paper to a smaller scale. Measure the school yard and places in the neighborhood. Make plans and maps of these places.

1. Pictures.—We have now been talking and thinking a great deal about direction and distance. In this lesson we will try to understand how they are shown to the eye. To show them

to the eye we use what we call plans, or maps. But what are plans, or maps?

We all know what pictures are. Here we see the picture of a schoolroom.



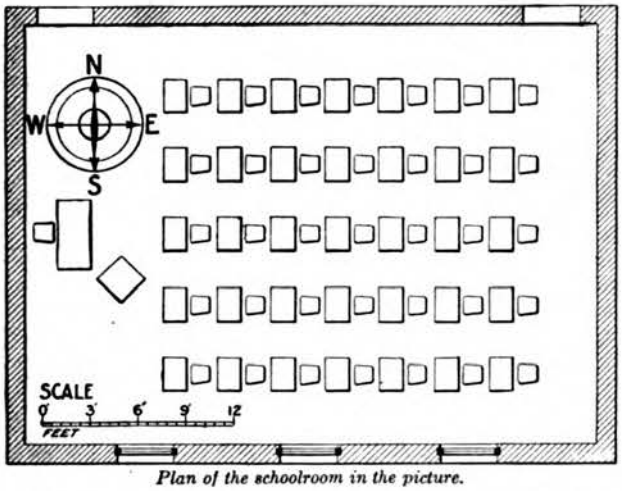
Picture of a city schoolroom.

It almost seems as if we were in it. There are desks and blackboards, pupils, teacher, teacher's table, pictures, etc., all looking just like the things themselves.

Pictures, then, are drawings that show how things look.

2. Plans, or Maps, are different. They are drawings that show where things are. They tell in what direction things are from one another, and how far apart they are.

Here we have a plan of the schoolroom. the picture of which is shown above.



Plan of the schoolroom in the picture.

Let us make a plan of our own schoolroom on the blackboard.

The first thing is to represent the sides. Suppose we measure them. We can see that they cannot be drawn on the blackboard as long as they really are.

So we will let one inch on the blackboard represent one foot. Then we will draw all the sides so many **inches** long, instead of so many **feet** long.

Now how shall we show directions in our plan? We cannot show them exactly as they are; but we will call the top of the plan north, the right hand east, the bottom south, and the left hand west.

We have now drawn the schoolroom floor. But there is nothing on it. That will never do. So we will make some little marks that shall show just where the desks and chairs are. Then we shall have a plan, or map, of the schoolroom floor and of the things upon it.

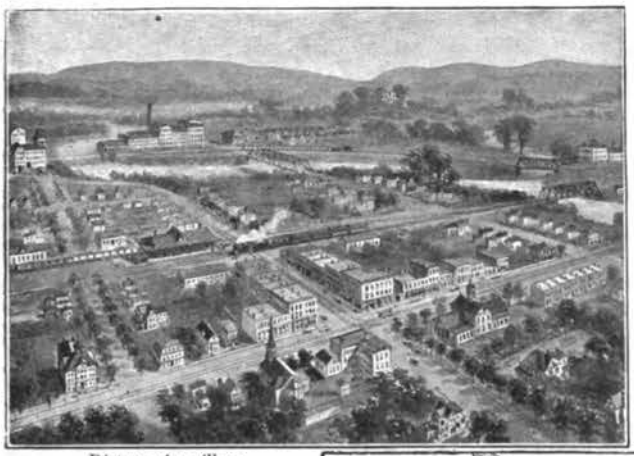
Our plan is a great deal smaller than the floor really is, but all the parts are made smaller alike, or in *proportion.* The plan is said to be drawn on a **scale** of 1 inch to 1 foot, which means that every inch on the plan stands for 1 foot.

Now what does the plan show? It shows just where everything is, in what direction things are from one another, and how far apart they are.

We can see that the door is on the north side of the room, that the teacher's desk is on the west side, and that the windows are on the south. We can see in what direction each pupil is from every other.

Then, again, we can tell how far each thing is from every other. If it is twenty inches on the plan from one boy's desk to the door, you know that that boy has to walk twenty feet to reach the door when he is going home, because every inch stands for one foot.

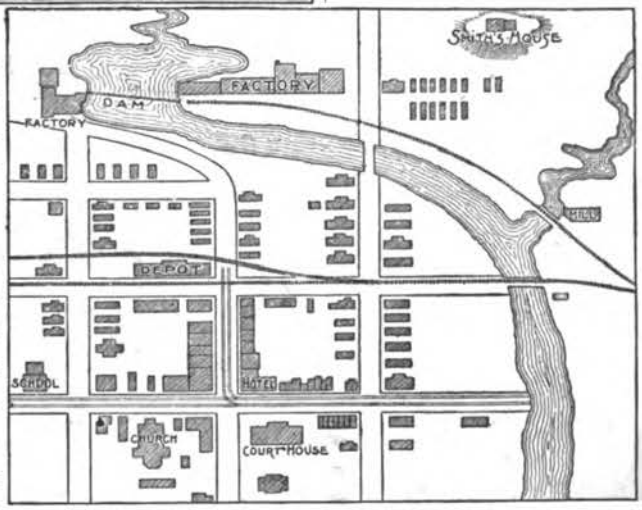
3. Picture of a Village.—Here is a picture of a village with its streets, its railroad station, its factory, its churches and its homes. Does it not look just like a village? You can see the train coming into the station, and the stream which



Picture of a village.

flows near by. Find three bridges across the stream. Find the farmhouse in the country north of the village.

4. Plan, or Map, of a Village.—Here we have a plan, or map, of the same village. It does not look like a village, but, like the plan of the schoolroom, it shows the direction and exact distance of points from each other.



Map of the same village. Find objects shown in the picture.

5. Larger Maps.—Now as we make maps of villages, so we make maps of counties, states, and whole countries. In some maps, as we shall soon learn, half of the earth is shown at once.

The scale of such a map will be very small. An inch may represent more than a thousand miles.

For Recitation.—What do plans, or maps, show? How much land can be shown on a map?

LESSON V.

THE EARTH.

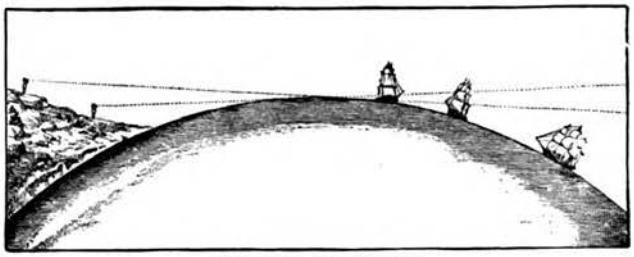
Preparatory Oral Work.—Make balls of clay. Stick a hat pin through the center of each ball, and measure the distance through the balls. Do this from several directions. Ask if the measurements are the same. Should they be? Teach the word *diameter*. Cut each ball into halves. What shape is the cut surface of each half? Measure the distance around the edge with a string. Put the halves together and halve again in another plane. Ask if these measurements are the same. Should they be? Teach the words *circumference*, *equator*, and *poles*.

1. Shape of the Earth.—In studying geography we shall learn a great many strange things. One of the strangest things is what we learn about the shape of the earth.

Suppose the earth were flat, and we were to travel on and on in one direction without turning, should we ever come back to the same place from which we started? Of course we should not. If we traveled long enough we should come to the edge of the earth. We should be like an ant walking on a table. If the ant keeps on in one direction all the time, it will reach the edge of the table.

But if the ant walks upon an orange and always goes in the same direction, it will at last come to the place from which it started. This is because the orange is round.

If people travel on the earth, always keeping in one direction, like the ant on the orange, they never come to any edge. They arrive at last at the place from which they set out. So we know that the *earth is round like a ball or an orange.*



Ships seen from the shore.

When the author of this little book was a boy he started from New York in a ship, and traveled for many months, *never turning back*, until at last he came to New York again. He had gone round the earth.

The earth does not *seem* round to us. The fields and the village, or the city where we live, may be flat. Some places look as flat as a floor. But still the earth is round.

Can we suppose that the little ant on the orange thinks that the orange is round? If he thinks at all, he must think it is flat.

We are so large that we see a large part of the orange at once. Hence we can see that it is round. The small ant sees only a small part of the orange at once, and that part seems flat.

If we could stand off and look at the earth as we look at the orange, then we should see that it is round. But we cannot get far enough from the earth to do this; we can see only a very small part of it at one time. This is the reason that it seems flat to us.

The Earth as it would look if we could see it from the moon.

2. Size of the Earth.—Suppose a carrier dove should fly round the earth. A swift carrier dove can fly 100 miles an hour. If it was to fly at that rate, without ever stopping, it would be more than ten days in going round the earth.

If a man could walk round the earth, and went 50 miles a day, the trip would take him more than sixteen months.

What a big ball the earth must be! We know about how much a mile is. The distance round the earth is 25,000 miles. This distance is called the **circumference** of the earth. The distance through the earth is about 8,000 miles. This distance is called the **diameter** of the earth.

The distance through the earth is a little greater at the equator than it is at the poles. If you press an orange between your thumb and finger and flatten it a little, it will have about the same shape as the earth.

For Recitation.—What is the shape of the earth? How do we know this? Why does the earth seem flat to us? How far is it round the earth? How far is it through the earth?

LESSON VI.

THE SURFACE OF THE EARTH.

Preparatory Oral Work.—Teach the word *surface*. Touch the surface of the globe; of the desk. Teach that one is a flat and the other a curved surface. In the same way teach the word *interior*.

Show the pupils how the waves dashing against the rocky coast might tear it down, and by pounding the torn pieces and rolling them about might grind them down to pebbles and sand.

1. Land.—The outside of the earth is called its surface. One part of the surface is solid, or hard. This is called the **land.**

We live on the land, and build our houses and towns and cities upon it. Trees and other plants grow on the land, and animals live on it.

2. Water.—But there is a large part of the surface of the earth which is **water.** Most of us have seen a pond, and we all know what a pond is. Now suppose a pond were made ever so large, hundreds and thousands of miles across, instead of a few yards. There is a pond as large as that. It is called the **sea.**

How large do you think it is? A boat can sail across a small pond in a few minutes, but it takes a sailing vessel about fifty days to sail across some parts of the sea. Think of being on the water seven weeks without seeing land!

We can see in the picture above that the water surface is very much larger than the land surface. There is nearly three times as much water as land.

Under the water is land which is much like other land except that the water covers it. Strange plants grow on it. There are no daisies or buttercups, but there are seaweeds of beautiful colors, purple and yellow and red and green. The fishes, you see, have their gardens as well as we.

Photograph by Hegger, N. Y.

A view of Cornwall, England, where the land and the sea meet. The sea washes against the cliff and wears it away.

It may seem strange that the fishes should have so much more room to live in than man and the other animals. But we shall see, when we know more about geography, that man and the lower animals that are on the land could not live at all if it were not for the great sea. The plants would have no rain. They would all die, and there would be nothing for us and the lower animals to eat.

3. Air.—Over all the land surface and over all the water surface is something that we call air. It is just as much a part of the earth as the land and the water. We live in this air much as fish live in the water. It is all around us, but it is so thin and clear that we cannot see it. When we look up, the blue that we see and call the sky, is really air.

When air moves past us we can feel it, and then we call it a breeze or wind.

The clouds are floating in the air. Anything that is as light as air will float in it. A balloon rises and floats because it is filled with something lighter than air.

Below the land surface and below the water that fills the low places in the land, is rock, and we believe that far down in the center this rock is red-hot all the time; but the center is so far below the surface that no one has ever been able to get far enough into the earth to find out whether our belief is correct.

For Recitation.—Into what is the surface of the earth divided? How much of the earth's surface is land? How much of it is water?

LESSON VII.

THE LAND.

Preparatory Oral Work.—On a sand board, or big table, or tin tray, painted blue, if possible, to represent water, make roughly, with wet sand, shapes representing the land forms. Develop therefrom the meanings of the terms *coast*, *continent*, *island*, *peninsula*, *isthmus*, *cape*, and teach the terms. Who has seen an island? a peninsula? a cape? an isthmus?

Turn to the relief map on page 35. Find a peninsula; an isthmus; an island.

1. We have now learned that the surface of the earth is partly land and partly water.

Both the land and the water are divided into parts or bodies of different sizes and shapes.

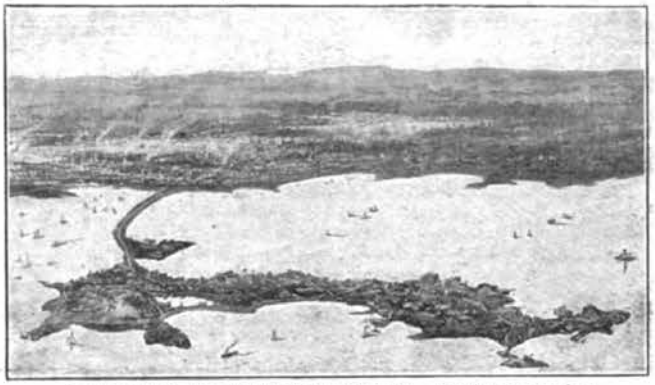
2. Continents.—The largest parts or divisions of the land are called con'-ti-nents. Notice two of them in the picture on page 9.

We can travel on them for hundreds and even thousands of miles without ever reaching the sea. It takes a railway train nearly a week to go across the continent on which we live.

3. Islands.—Parts of the land smaller than continents, and entirely surrounded by water, are called **islands.**

All the islands have never been counted, because there are so many. Some of them are very large, others so small that they look on the map like specks. Some contain a great many inhabitants; others have no one living upon them.

Perhaps the most curious of all are the **Coral Islands.** Most of them are found in the Pacific ocean. We shall learn more about these islands by and by.



A peninsula on the coast of Massachusetts. Find a cape and an isthmus on the peninsula.

4. Other Forms of Land.—The edges of the land are often jagged, as shown in the picture.

Some parts stretch far out into the sea, and are nearly surrounded by water. These are called **pen-in′-su-las.** The word peninsula means *almost an island.*

A narrow strip of land that connects two large bodies of land is called an **isthmus.**

Points of land jutting out into the water are called **capes.**

Find a peninsula on map, page 35. Find also an isthmus. How many capes can you find?

A small island on the coast of Maine. Notice the hotel, the steamer just leaving, and the boat sailing around the island.

For Recitation.—What are the continents? What is an island? What is a peninsula? What is an isthmus? What is a cape?

LESSON VIII.

MORE ABOUT THE LAND.

Preparatory Oral Work.—Teach the word slope. Teach the word plain. Teach the word hill. Teach the word valley.

Have pupils make these forms in sand or clay. Then let them make a mountain, a chain or range of mountains, a ridge, a peak; use pictures and stories to develop the ideas.

1. Heights of Land.—The playground is level, or nearly level. Let us imagine it stretched out for miles on every side. Nearly level land like this would be called a **plain.** On very large plains we may travel for days and days together, and see only the blue sky above us and level land all around.

Some large plains are called **prairies.** They are often covered with long grass and beautiful flowers. Thousands of buffaloes used to live upon them. Many of the prairies are now plowed and used as corn and wheat fields.

A plain lying along the seacoast is called a **coastal plain.** A high plain is called a plateau.

Now imagine a great plain covered with sand, rocks and stones—not a single flower to be seen, not even a blade of grass, for hundreds of miles. Such land is called a **desert.**

In a desert we find here and there a patch of ground where water bubbles up. Here trees grow and flowers bloom. Such a spot is called an **o′-a-sis.**

Instead of being level, like plains, the land in some places slopes up and up until it is higher than a house, or the tallest tree. Such land is called a **hill.**

A very high hill is called a **mountain.** Some mountains are so high and so hard to climb that no one has ever been to the top of them.

A range of mountains in the Alps in Europe. In the narrow valley between the mountains many people have homes.

It is very cold at the tops of high mountains, and many of them are always covered with snow.

Some mountains slope down on all sides, but generally mountains extend in long lines with slopes on but two sides. Such a line of mountains is called a **range** or **ridge**. When several ranges near each other extend in about the same direction they are called a mountain **chain**.

There is a wonderful kind of mountain that seems to be on fire inside. It is called a **volcano**. There is a great hole called the **crater** at the top of it, and out of this hole red-hot cinders and melted stones are sometimes thrown far upward.

The land which lies between mountains or hills is called a **valley**.

For Recitation.—What is a plain? A prairie? A desert? A hill? A mountain? A volcano? A valley?

LESSON IX.

THE WATER.

Preparatory Oral Work.—Boil some salt water before the class and condense the steam upon a cold plate. Have the children taste the water before boiling, and afterwards taste the drops formed by the condensed vapor. Explain how vapor rises and forms clouds; how clouds are carried over the land; how mountains condense them into rain or into snow; how the rain sinks into the ground and comes out again as springs.

Teach the wearing power of water. The schoolroom yard or a dirt road will teach this. Explain how the mud that a river washes away from the hills is deposited.

1. The Sea.—There are a great many interesting things to learn about the sea. First of all, it is never still. It is always rolling and rocking or dashing its waves into foam on the shore. In storms the waves often drive ships on rocks and wreck them. Another movement of the sea causes it to rise and fall slowly twice in a day. These two movements of the sea are known as tides.

Vesuvius, a volcano in Italy, in eruption, 1906. About 700 feet of the cone of Vesuvius was blown away during this eruption, and several villages were destroyed.

The sea as it rolls up on a flat sandy coast called a beach. Compare with the sea pounding the rocks, on page 10.

Then again the sea is very deep. In some places it is five miles to the bottom. The water of the sea is salt. Sailors take fresh water with them to drink when they go to sea.

Besides being interesting, the sea is useful. It is a great highway. Ships are all the time carrying things across it, from one country to another. If we go into a grocer's store, we see spices for sale. They grew thousands of miles away, and were brought over the sea in ships.

2. Divisions of the Sea.—The sea is one sheet of water. A ship can sail all over it. But different

A bay. A breakwater has been built to enclose part of the bay as a harbor for the city.—Nice, France.

parts of it are called by different names. The largest parts or divisions of the sea are called **oceans.**

There are smaller divisions that are partly shut in by the land. These are called **gulfs, bays,** and **seas.** A portion of a bay so nearly enclosed by land that ships can be sheltered in it is called a **harbor.**

A generally narrow passage of water connecting two larger bodies of water is called a **strait.**

In some cases bays and straits are caused by the ocean's wearing away the coast. In other cases they are caused by the sinking of a strip of the land, so that the waters of the ocean flow over it.

Some straits are called **channels.** Wide straits are sometimes called **sounds.**

A watershed. Its slopes carry water from the ridge or divide.

3. Water upon the Land.—Besides the water of the sea, there is a great deal of water upon the land. Most of it is fresh.

A mountain watershed. The Blue Ridge in North Carolina. Its slopes carry water from the divide to two different streams.

And yet it all comes out of the salt, salt sea. Let us try to understand this. When it rains or snows the sky is covered, we know, with clouds. Clouds are vapor. They are like the steam which comes out of a kettle or an engine.

The sun is all the time heating the sea and making vapor rise. That vapor forms the clouds. The winds drive the clouds from the sea over the land, and down they come as rain or snow. But when the vapor rises from the salt water it leaves the salt behind. And so,

The Columbia river, near its source.

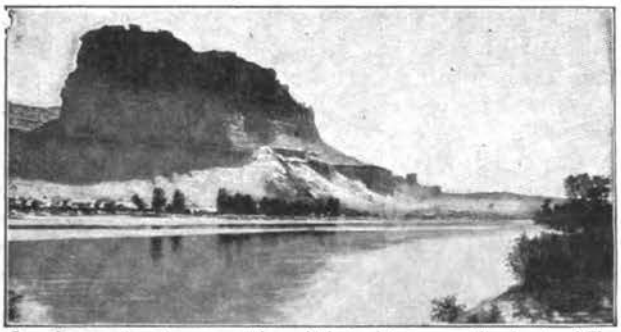
the rain and snow are fresh. Some of the rain and snow is at once drained off by rivers; some sinks into the ground.

Where streams overflow mud is deposited which builds up a plain, as is seen in this view of the Connecticut river. Scientists call this ***a flood plain; others call it bottom land.***

Fresh water that bubbles out of the ground is called a **spring**; and yet it is only rain that sank slowly into the ground and comes bubbling out again.

The water from springs may be seen flowing down the hillside and looking like a bright stream of silver. Many little streams unite to make a larger one called a brook, or a still larger one called a creek.

Now suppose several brooks or creeks come



In a dry country, streams cut through their plateaus rapidly, leaving hills whose sides are straight up and down. This is the Green river in Colorado. Compare with Yadkin river.

together and make a stream larger yet, what will that be? We call it a **river.** The beginning of a river is called its **source**; the end of it is called its **mouth.** Now let us follow a river that begins among the mountains. Let us go from its source down to its mouth.

The first part of such a river is very rapid. The water dashes down the mountain side. Sometimes it leaps from rock to rock and makes waterfalls.

When it reaches the plateau, it is still very swift. Here, along the bank, we see mills for grinding corn or making cloth. They have wheels which the water turns as it passes on its way to the sea.

The mills need people to work in them, and so there is a village or a town built near by. Many cities have been built on the banks of rivers just because the swiftly running water then could be used to turn mill-wheels. On page 46 is a picture of a New England river and cotton mills built at its falls.

From the plateau, the river comes down to the coastal plain. Here the land has very little slope, and the river

The Yadkin river, North Carolina. Streams cut through the plateau, leaving the Piedmont, or foot hills, as we see them here. In the second cut notice how the land has been cut by streams.

flows slowly and becomes so deep that steamboats run on it. At its mouth we find cities called seaports, where ships bring in goods from other countries to be exchanged for goods that come down the river on boats, or over the land on railroads.

Another work that rivers do for us is to drain the surplus water from the land and carry it back to the sea.

Every brook and every creek is made up of water that falls near it, and rivers are made of the water poured

A river, the Savannah, flowing through the coastal plain. The seaport is Savannah, Ga. Notice the ships. This plain is made of mud cut away from the plateau, and brought down by the river.

into them by brooks and creeks. A river and all the streams that carry their water into it make a river system, and the land from which they drain the water is called

the river basin. On page 87 find three great river systems and the basin which each one drains.

Sheets of water surrounded by land are called **lakes.** Some lakes are called seas. Many rivers rise in lakes.

For Recitation. What are oceans? What is a gulf, bay or sea? What is a strait? What is a spring? What is a river? What is a lake?

LESSON X.

THE EARTH ROTATES—DAY AND NIGHT.

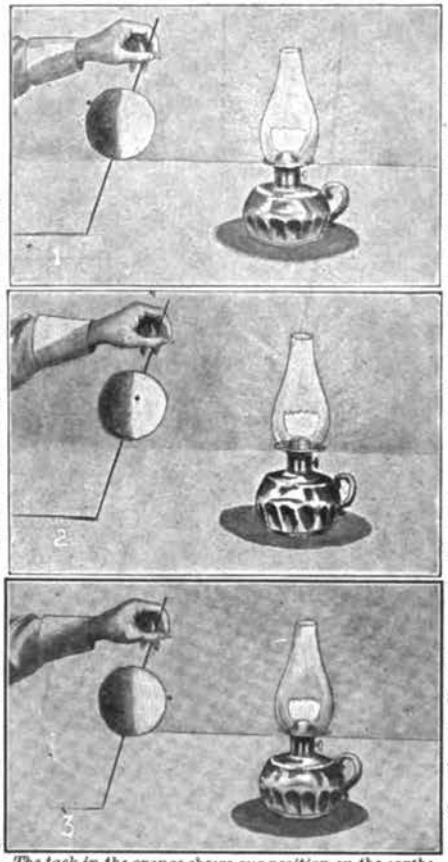
Preparatory Oral Work.—Take an orange or a ball of yarn or clay and put a hat pin through it. Stick a tack or a bit of paper on each globe to represent where we live. Let the pupils perform the experiment with a lamp or candle. Ask: What represents the earth? The axis? The sun? Where is it day? Where is it night? Where do we pretend that you live? Make it midday at that place; evening; midnight; morning; midday again. Let each child observe and record the hour of sunrise, of sunset.

1. What makes day and what makes night? We shall try to learn in this lesson.

Of course we know that it is day when the sun shines upon us. But why is it not always day? What makes the sun set and the light fade? And then, what makes the sun rise again in the morning?

People **used to think** that the sun really did come up and go down. They thought that it went under the earth at night, and came out again in the morning. They supposed that the rising and setting of the sun were like taking a lighted lamp and carrying it across a table, and then putting it under the table and bringing it out after a while at the opposite side. But we know that all this was a mistake.

2. What really happens? Let us see. Suppose we put an orange or a ball in the sunlight, or in the light of a lamp. Does the light shine all over it? No. Only one-half of it is in the light. The other half is dark. Like the orange or the ball, the earth is in the sunshine; but only one-half of it can be bright at a time. The other half must be in the dark.



The tack in the orange shows our position on the earth: 1, at midnight; 2, at sunrise; 3, at noon.

Now let us stick a knitting-needle or a sharp piece of wood right through the orange at the place where the stem used to be. Next let us hold the orange in the sunlight or lamplight, and make it turn round upon the knitting-needle. We shall in this way bring the side that was first dark into the light, and the side that was first light into the dark.

The knitting-needle stuck through the orange may be called the *axis* of the orange. And the orange, when it turns on the needle, is said to *turn on its axis.*

3. Now the earth turns round from west to east. It is said to *rotate*, or turn on its axis. Of course, we must not suppose that it really has a rod of iron or anything else stuck through it for an axis. But it turns as if it had.

One thing more we notice about our turning orange. It soon stops if we do not keep on making it turn. But the earth never stops. First one side is in the sunlight and then the other. *The bright side has day. The dark side has night.*

Whenever it is daylight with us, it is night with the people who live on the other side of the earth. When we are eating our breakfast or hurrying off to school, the children who live on the other side of the earth are getting their supper or going to bed.

We turn the orange round on its knitting-needle in a few seconds. But it takes the earth twenty-

four hours to go once round on its axis. This is why we have about twelve hours of sunshine and twelve hours of night.

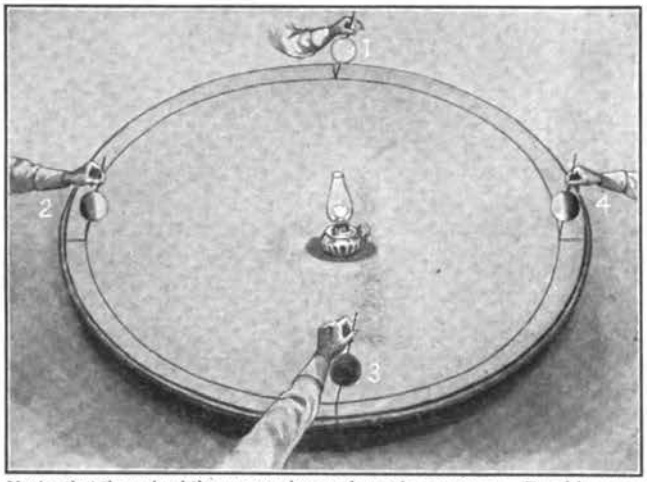
For Recitation.—How does the earth move? How long does it take to turn roun ? When do we have daylight? When do we have night? Does the sun really come up every morning and go down every evening? When the sun rises, what is happening? And when the sun sets, what is happening?

LESSON XI.

THE SEASONS.

Preparatory Oral Work.—Use again oranges or balls, hat-pins, and candles. Move the globes around, keeping the north pole always pointing in the same direction, and name the seasons. Then turn the ball on its axis as you carry it around the candle, so as to teach the class how both motions are going on at the same time. Let each pupil make the experiment. Ask who can do this at home to-night.

On the first Monday in each month, at twelve o'clock, measure the length of shadow of a perpendicular pole and record it. Measure the distance that the sun shines into a south window and record it. The shadows will be longest in December and shortest in June.



Notice that the axis of the orange always slants the same way. For this reason at 2 the light shines on the top of the orange; at 4 on the bottom; at 1 and 3 equally on both top and bottom.

1. The Earth Revolves.—Besides turning round on its axis, the earth moves in another way. Let us try to understand this movement. Suppose we draw a large chalk ring on the floor, or on the top of a large table, and then put the lighted lamp in the middle of the ring.

Now let us walk round the ring, holding the orange with the knitting-needle through it, so that the light of the lamp shines on it.

What we are now doing with the orange shows what happens to the earth. Nobody marks a ring for the earth with chalk, but still it goes in a ring, round and round the sun, as the orange does round the lamp. Nobody carries it, as we do our orange. It goes of itself, but it never gets tired and never stops.

It is only a few feet round our chalk ring. It is millions of miles round the earth's ring.

It takes us only a minute or two to carry our orange round the lamp. It takes the earth a whole year, all the time from one of our birthdays to another, to revolve around the sun.

2. The Seasons.—Now as the earth moves in its ring round the sun, sometimes our country receives more sunshine and heat, and sometimes less.

At one time the swallows come. The birds build their nests. The people are planting and sowing. It is now not very hot and not very cold. It is **spring.** The orange at 1 in the picture shows where the earth is in its path at this time.

In a very short time there comes a change. The days grow longer, the weather gets warmer. The trees are full of fruit, the melons are ripe. It is **summer.** The orange at 2 in the picture shows where the earth is in its path at this time.

Months pass. The leaves turn and begin to fall. The yellow corn is gathered in. Thanksgiving Day comes. It is **autumn** or **fall.** The orange at 3 in the picture shows where the earth is in its path at this time.

Again there is a change. The days grow shorter, the weather gets colder. Snow covers the hills; ice covers the ponds. Christmas and Santa Claus come. It is **winter.** The orange at 4 in the picture shows where the earth is in its path at this time.

These four parts of the year—spring, summer, autumn, and winter—are called the four **seasons.**

In some countries there are only two seasons, called the wet and the dry. In others there is one long winter with scarcely any summer.

For Recitation.—Besides turning on its axis, how else does the earth move? How long does it take the earth to go round the sun? What changes in the weather take place as we go round the sun? What, then, may we say is caused by the earth's revolving round the sun? How many seasons have we? Have all parts of the earth four seasons?

LESSON XII.

CLIMATE AND ZONES.

Preparatory Oral Work.—Keep on the board a daily record of temperature and rain for two weeks preceding this lesson. Now turn to this record and teach the terms weather and climate. Ask on how many days we have had wet weather; on how many dry weather; whether our climate is wet or dry.

1. Climate.—We have learned that the sun gives us heat and light, and that besides this, it makes the vapor rise from the sea, and so causes the rain to water the earth.

But the sun shines upon the earth in such a way that it warms and waters some parts of it much more than others.

Some parts are very hot; some are bitterly cold; others are sometimes hot and sometimes cold. So, too, some parts of the earth are very rainy; in some there is hardly any rain at all; in others there is neither too much nor too little rain.

The heat or cold, and the moisture or dryness of a country for all the time make up what is called its **climate.** When we speak of these for a short time, as a day, or a week, we use the word **weather.**

A country that has much more hot weather than cold during the year has a **hot climate;** one that has cold weather the greater part of the year has a **cold climate;** and a country in which the hot and cold parts of the year are nearly equal has a **temperate climate.** The climate, again, may be **moist** or it may be **dry.**

2. Zones.—Look at the picture. The red belt shows that part of the earth which receives the most heat from the sun, and in which the most rain falls. This is called the **Torrid** or **hot zone. Zone** means belt.

Across the middle of the picture is a line which divides it exactly into halves. We imagine such a line to go all round the earth. It is called the **equator.** The Torrid zone lies on both sides of it, and the sun is always shining straight down on some part of this zone.

The white belts represent the parts of the earth which receive little heat, and where the air is always cold. These are called the **Frigid** or **frozen zones.**

We see at the top and bottom of the picture two little white dots. These show the points of the earth's surface that are farthest away from the equator. We call these points the **north pole** and the **south pole.** The Frigid zones lie around them. There is at least one whole day in each year during which the sun does not shine upon any part of these zones.

The zones.

The yellow belts show where there is a summer and a winter, and where both the heat and rain are less than in the Torrid zone. These are the **Temperate** or **mild zones.** Here the sun never shines straight down, but it never fails to shine during some part of every day.

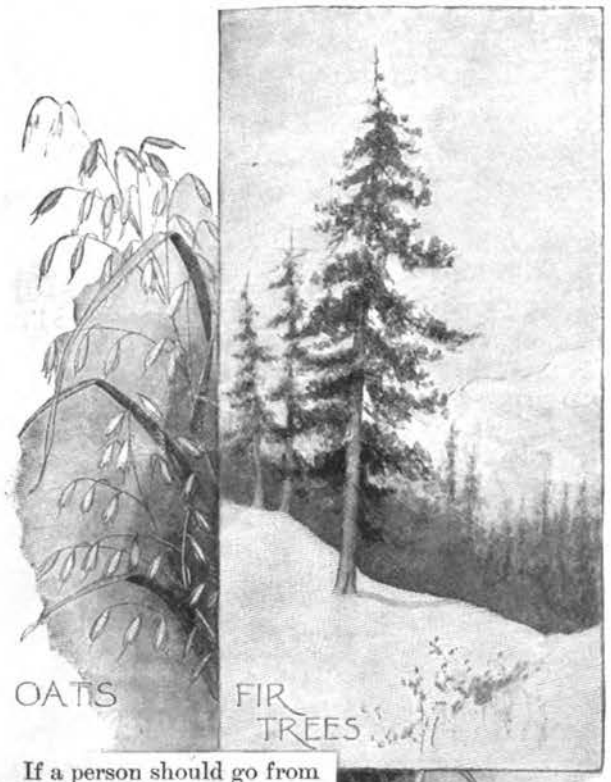
There are two Frigid zones and two Temperate zones. These are known as the North Frigid zone and the South Frigid zone, and the North Temperate zone and the South Temperate zone.

We must go quite far north or south of the place where two zones join before we notice that the zone we are in differs from that which we left. However, if we should climb up a high mountain, in either of the Temperate zones or even in the Torrid zone, we would notice that the climate soon becomes colder and colder the farther we go up above the lowlands.

The climate of a country depends chiefly on its being in one or another of these zones.

In the Frigid zones we should see mountains of ice and endless fields of snow.

The people live in huts of snow and ice. They dress in fur and even then can hardly keep warm.



If a person should go from his snow hut in the Frigid zone to the Torrid, he would find his fur clothing too hot to wear. He would want the thinnest clothing to be found.

as the Frigid. They are the pleasantest parts of the world.

Our home is in the North Temperate zone.

Many other things change the climate of a place. High mountains, even in the Torrid zone, give a temperate climate to places half-way up their sides, and give a frigid climate at their snow-covered tops. If warm, moist winds constantly blow over a country, they give it a mild climate.

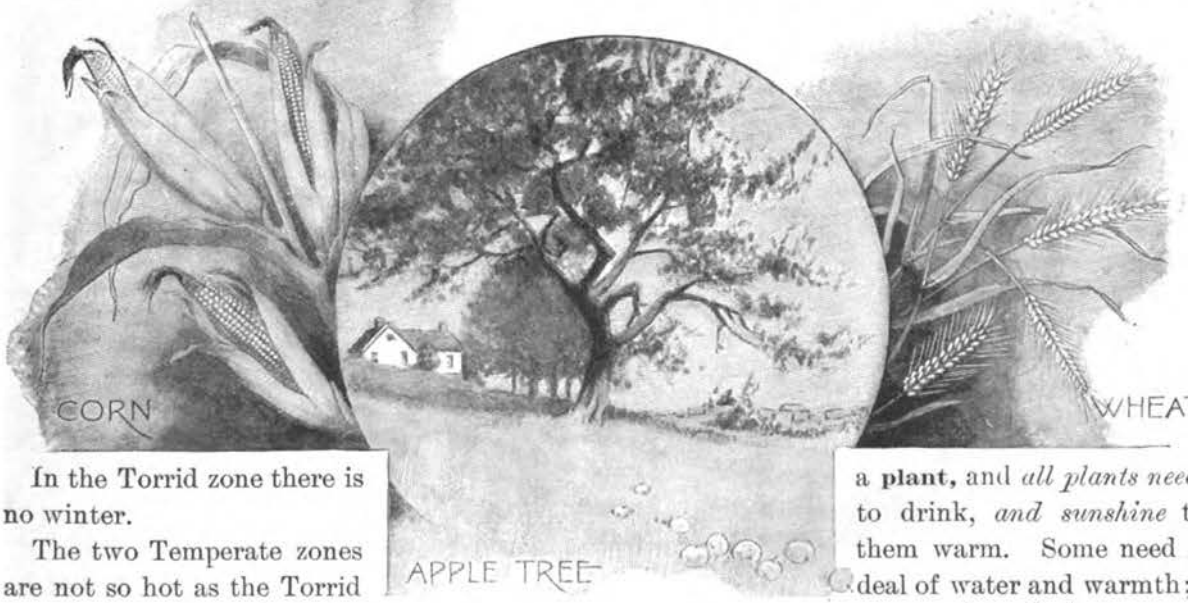
For Recitation.—What does the sun do for the earth? What is meant by the climate of a country? What part of the earth has the most heat and rain? What are the coldest parts of the earth? What kind of climate do you find in the temperate zones? In which zone do you live? In what direction would you travel to reach the Torrid zone? The South Temperate? The North Frigid?

LESSON XIII.

PLANTS.

Preparatory Oral Work.—Talk to class about the care and cultivation of plants. Why are some plants taken up when cold weather comes and put in the house? How does frost affect plants? What plants can live out of doors all winter? Teach the reason for the cultivation of different plants—for the root, seed, leaf, blossom, etc.

What Plants Are.—What is the use of the earth's being warmed by the great sun, and watered by the rain and dew? Let us see. Everything that grows out of the earth is called a **plant,** and *all plants need water* to drink, *and sunshine* to keep them warm. Some need a great deal of water and warmth; others want only a little.



In the Torrid zone there is no winter.

The two Temperate zones are not so hot as the Torrid zone, nor so bitterly cold

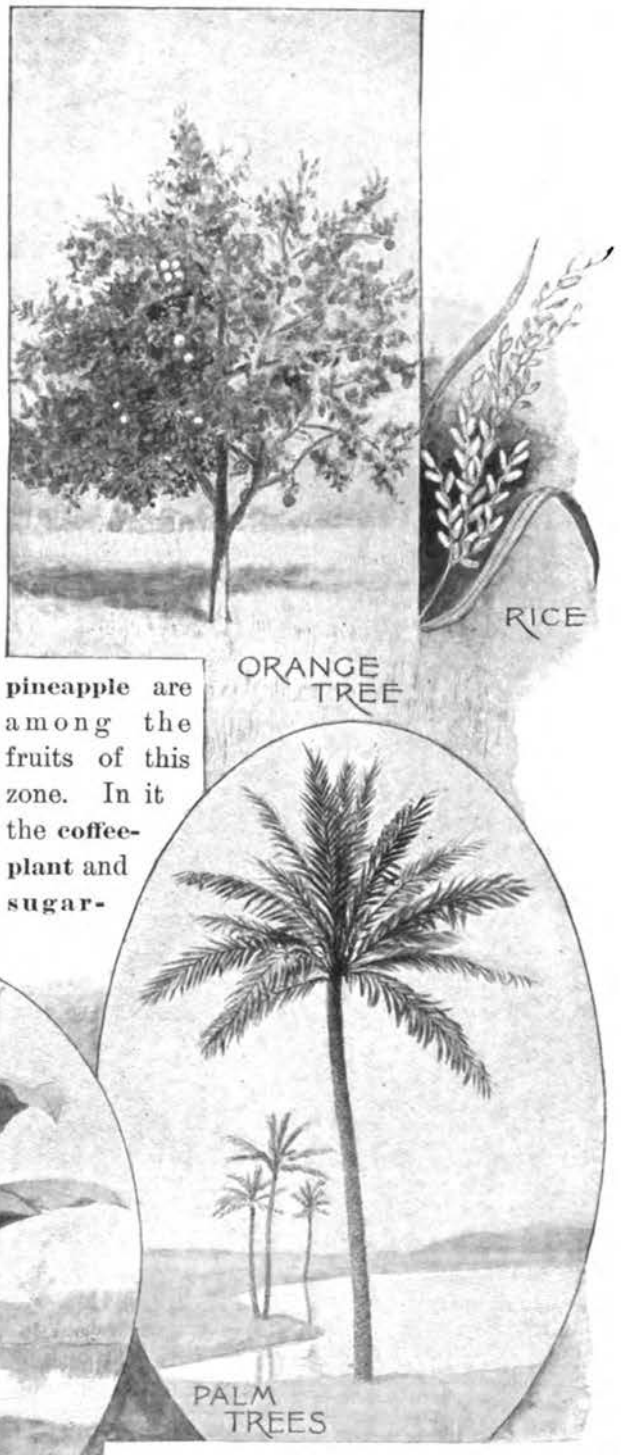
Plants cannot grow without heat and moisture. **Different plants belong to different zones.**

In the **Frigid zones** the winters are long and very cold with little light. Hardly anything grows here except mosses and a few low-growing plants that flourish during the short summer. The Frigid zones may be called the treeless belts.

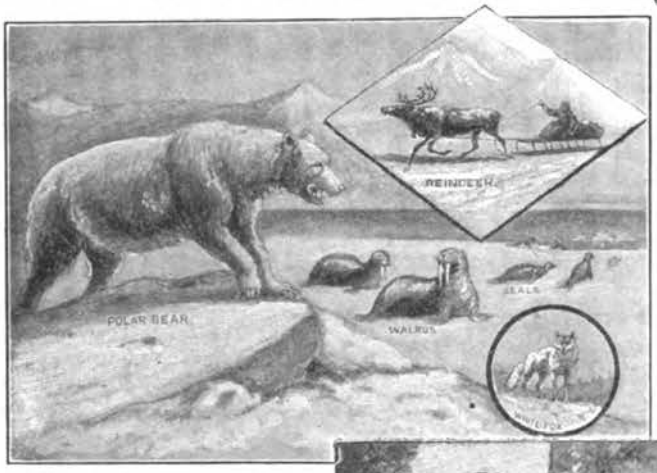
Let us leave them and visit the **Temperate zones**. Here we shall find more heat, and more light, and plenty of rain and dew. And so we find here, too, a great many plants.

In each of the Temperate zones that part near the frigid is still very cold, and we call it the cold belt. **Fir** trees and **oats** grow here. In the middle belt of the Temperate zones we find the really temperate climate. **Wheat, corn,** and **cotton** grow in the fields. There are forests of **oak, maple,** and **pine,** and orchards of **pear, apple,** and **peach** trees. Nearer the Torrid zone the climate is very warm, and we call this the warm belt of the Temperate zones. Here rice is the principal grain, and the **tea-plant, sugar-cane,** and **orange** tree grow.

In the **Torrid zone** there are more heat and more rain than anywhere else. So here we find the greatest number of plants. There are forests of **India rubber** trees, groves of **palms** and jungles of **bamboos.** The delicious **banana** and **pineapple** are among the fruits of this zone. In it the **coffee-plant** and **sugar-cane** have their home, and the largest and most beautiful flowers grow. The different plants of a country make up what we call its **vegetation.**



Did you ever think how useful plants are to us? What should we do without corn and wheat to eat, tea and coffee to drink, sugar to make things sweet, timber with which to build our houses, and cotton to clothe our bodies?



For Recitation. — What is a plant? What do plants need? Why do we find the fewest plants in the Frigid zone? What kind of plants grow in the Frigid zone? Name some of the plants of the temperate zones? Where do we find the greatest number of plants, and why? Name some of the plants of the Torrid zone.

LESSON XIV.

ANIMALS.

Preparatory Oral Work.—Get pupils to talk about animals that they have seen. Which work for man? Which furnish food for us? Which furnish clothing for us? What wild animals have you seen? What did they eat?

Whatever lives, eats, feels, and can move from place to place is called an **animal.** There are many kinds of animals, and they are very different from one another.

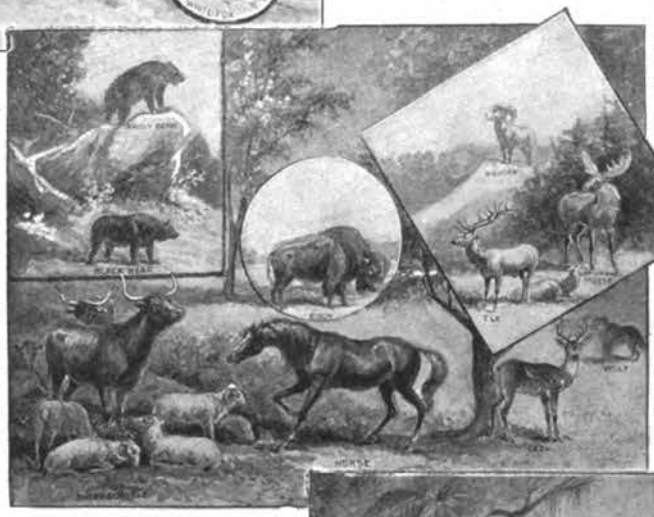
Some animals, like some plants, need a hot climate; others need a cold climate. **Different animals belong to different zones.**

Very few animals belong to the **Frigid zone,** but there are some that can live only there. The **walrus** and **seal** find no place so nice as the icy seas of the Frigid zone. They must bathe every day in water so cold that it would freeze us.

In the same cold zone live the huge **white bear** and the **reindeer,** an animal that is fond of hunting underneath the snow for his dinner of moss.

In the **Temperate zones** we find the greatest number of animals that are useful to man. Most of these animals live on plants. The **horse,** the **ox,** the **cow,** the **sheep,** and the **goat** are called domestic, because they have been tamed and make their home with man.

Among wild animals are the **grizzly bear,** the **wolf,** and the **kangaroo.**



In the **Torrid zone** there are more wild animals than anywhere else. That zone is the home of some of the largest, the fiercest, and the most beautiful animals.

In the woods there are huge **snakes, lions, and tigers. Monkeys** are jumping from tree to tree. Blue and green **parrots** are screaming from the tree-tops, and scarlet **flamingoes** are wading in the pools. In the Torrid zone we can ride on the back of an elephant and hunt the tiger.

Besides the animals on land, we must remember those of the sea. **Whales** and many fish dart about through the waves. Some fish live only in very cold water; others only where it is warm.

The water at the bottom of the deeper parts of the sea is always cold, but its surface waters have zones very much like those of the land.

For Recitation.—What is an animal? Where do we find the fewest animals? Name some of the animals of the Frigid zone. Where do we find the greatest number of animals that are useful to man? Name some animals that belong to the Temperate zones. What zone contains the greatest number of animals? Name some of the animals that belong to the Torrid zone.

A growing corn plant: the dark layer at the top is soil; next below comes gravel, then clay, gravel again, and, finally, hard rock.

LESSON XV.

MINERALS AND SOIL.

Preparatory Oral Work.—Get the pupils to report what uses they have seen made of stone, and compare stone with brick. Get specimens of metals and building stones.

Get specimens of loam, of sand, and of clay. Let pupils feel the specimens and see how they differ.

Fill two glasses with clear water, and put in one a tablespoonful of coarse sand, and in the other a tablespoonful of fine powdered clay, or of loam. Notice which settles first.

Get a tall glass jar, fill it with water, and pour into it a well-mixed assortment of small pebbles, fine sand, and finely powdered clay. Notice the sorting of materials that takes place while they are settling.

Minerals.—We have learned about many plants and animals that are useful to us. Besides these there are also many very useful things that we dig out of the earth. The coal that we burn in our fires, the kerosene oil that gives us light, the granite and sandstone used in building, the salt that we eat at our meals, the diamond that shines like a sunbeam—all come out of the earth.

The rocks, coal, and other things of which the solid earth is composed are called **minerals.**

Metals.—Some minerals, such as iron, copper and lead, gold and silver, are called **metals.** The last two, gold and silver, are called the **precious metals.** They are made into money.

Soils.—But perhaps the most useful part of the earth is the part that we call **soil.** You have seen soil in the gardens and fields, and you have noticed its color. If you will look closely at a handful of this soil you will see that it is made of fine grains like those of powdered stone. What is called rich soil often contains also particles of decayed leaves or other vegetable or animal material.

For Recitation.—What is a mineral? Name some of the most useful minerals. Name some of the metals. Which are called precious metals? What is soil?

LESSON XVI.

OCCUPATIONS.

Preparatory Oral Work.—Talk to the class about the occupations most familiar to all. Let pupils visit some factory and tell what they saw. A shoe shop, a tailor's shop, a blacksmith shop, are simple factories. Discuss other occupations, and let pupils bring pictures of people at work in any of the leading industries.

Most people earn their living by doing some kind of work. We call people's work their **occupation.** Let us see what are the great occupations of the world.

We all eat food made from plants, and from plants we get cotton and linen for clothes.

Now we all know that cabbages and potatoes do not grow of themselves. Just so wheat and corn, the cotton plant, and the flax or linen

A plowing scene. The dark soil has been plowed.

plant, will not grow of themselves. People must plow the ground for them, plant the seed, reap the grain when it is ripe, cut the flax, and pick the cotton.

Raising corn, or wheat, or other plants for food or clothing is called **agriculture** or **farming.**

We do not like to eat dry bread. So some people keep cows and make butter and cheese for the rest. Those who do so are occupied in dairying.

Then, too, we all eat meat. So some people must keep the animals whose flesh we eat. Those animals are called stock, and the business of those who keep them is called stock-raising.

Milking. A dairy in Westchester County, N. Y. Notice the heads of the cows that live up-stairs.

Farmers use plows to turn up the soil, and machines to cut their wheat. We all use knives and scissors, needles and pins, and other such things.

People who make the things that other people use are said to manufacture.

But of course the man who makes plows must have iron and wood of which to make them; the man who builds wooden houses must have wood. Where shall they get the iron and the wood?

Iron is a mineral. It is dug from the earth. Some one must dig it up and make it fit for the plow-maker to use. The occupation of digging minerals out of the earth is called mining.

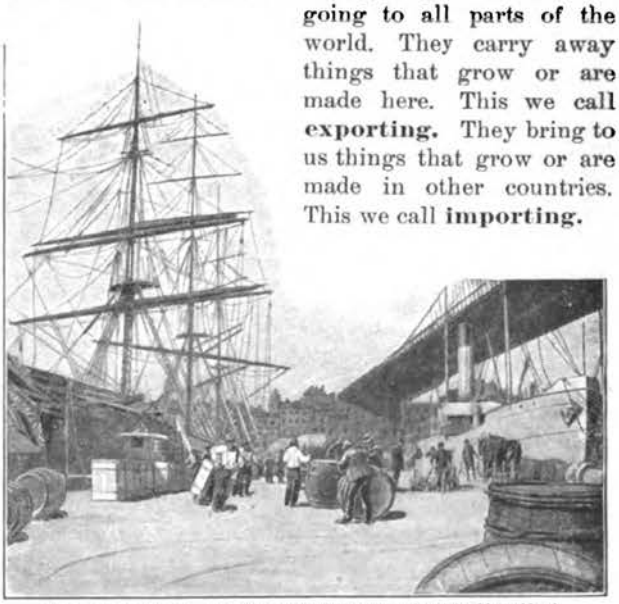
Wood is obtained from oaks and pines and other trees. The occupation of cutting down the trees and sawing them up to be made into houses, or ships, or other things, is called lumbering.

When a boy wants some marbles, he goes to a store and buys them. When a farmer wants a plow, he goes to a store and buys it. If in one country the people have not enough wheat, they buy some from a country where the people have more than enough. If in one country more cotton grows than the people want, they send it to other countries where cotton does not grow. The business of exchanging goods is called **commerce.**

Lumbering. View in Georgia. Railways are used on the coastal plain.

Often things have to be carried a long way before they reach the persons who want them. The tea or coffee that we use had to travel many thousand miles before it reached us.

This is why we have so many ships and steamers going to all parts of the world. They carry away things that grow or are made here. This we call **exporting.** They bring to us things that grow or are made in other countries. This we call **importing.**



Ships from South America unloading at a wharf in New York.

For Recitation.—What are the chief occupations of men? What is agriculture? What is stock-raising? What is manufacturing? What is mining? What is commerce?

LESSON XVII.

GOVERNMENT AND RELIGION.

Preparatory Oral Work.—Ask the pupils such questions as these: Do you know what an officer is? Did you ever see one? Tell the names of some of the officers you have seen. What does a mayor do? A sheriff? A constable? A justice of the peace? Who makes the laws for your state? Who makes the laws for your town? Answer all questions that pupils cannot answer for themselves.

1. Government.—What a noise there would be in the school if there were no one to keep order! How many wrong things would be done, and how uncomfortable a place it would be!

Teachers, therefore, make rules. They keep the pupils in order, and manage everything for the good of all. They are said to **govern** the schools.

Towns, cities, and whole countries are somewhat like schools. They must have rules and rulers, or else a few disorderly people might make it very unpleasant for all the rest. Making rules for a country, and making the people obey the rules, is **government.**

The rules made for a country are called its **laws.** The city where the laws are made is its **capital.**

The rulers of different countries have different names. A ruler that is chosen by the people is usually called a **president.** One that rules because a father or other near relative ruled previously, is a **monarch.**

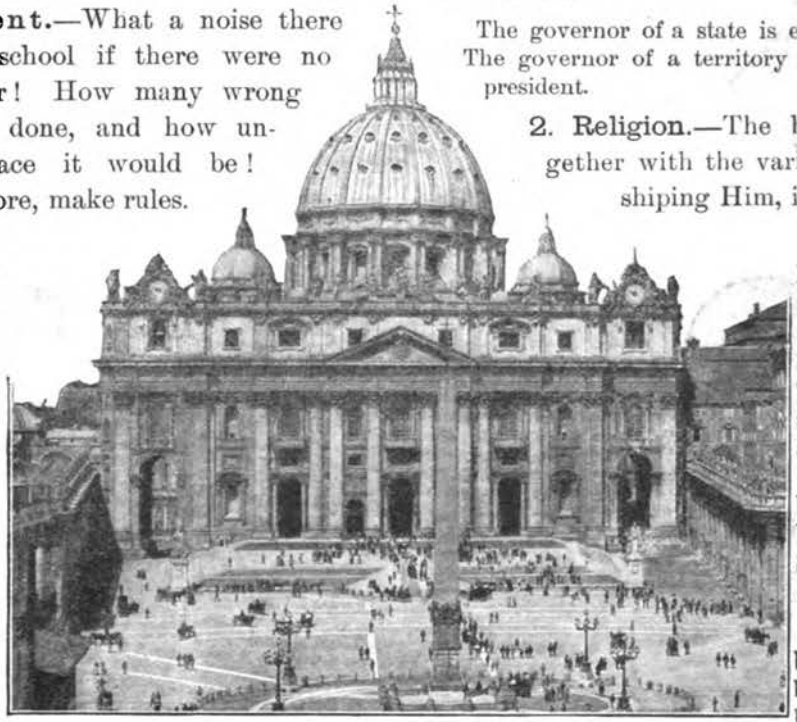
Monarchs are sometimes called **kings,** or **queens,** or **emperors.**

If the ruler of a country makes laws which are selfish, oppressive to the people, and opposed to their advancement, he is called a **despot.**

Countries that have presidents are called republics; those that have kings are called kingdoms; those that have emperors are called empires. Kingdoms and empires are sometimes called monarchies.

Republics, and other countries, are often composed of parts, which are called by various names. With us they are known as states and territories.

The governor of a state is elected by the people. The governor of a territory is appointed by the president.



St. Peter's church at Rome, the largest in the world.

2. Religion.—The belief in God, together with the various forms of worshiping Him, is called **religion.**

Christians believe in one God and that Christ is the Son of God and the Savior of the world. They accept the Old and New Testaments as the Word of God.

The Jews also believe in one God, but maintain the Savior has not yet come.

Mohammedans believe in one God, but recognize Mohammed as His greatest prophet. Many Mohammedans are but half civilized.

There are people in the world who do not believe in one God, but think that there are many gods. Such people are called **pagans.** Some of them worship images of wood or stone, which we call **idols.**

The place where people worship is called a church, a synagogue, a mosque, or a temple.

For Recitation.—What is government? What is a republic? What is a kingdom? What is an empire? What are the chief religions of the world? Who are pagans?

LESSON XVIII.

RACES OF MEN—CIVILIZATION.

Preparatory Oral Work.—Suggestions to teachers: Have pupils compare different peoples as to their features, color, height, etc. Ask who has ever

seen a Caucasian, an Indian, a Malay, a Mongolian. Show how the people of any race may be savage or barbarous; how the people of any race may be civilized or enlightened. Impress the fact that these conditions are due to the manner of living and not to the race.

A Caucasian.

1. How Men Look.—The people who live on the earth do not all look alike. They differ in the color of their skins and in other ways.

Most of those that we see are white; some are black. In the western part of our country there are a good many red men, and in some parts yellow men, or Chinese, are found. In other parts of the world we find men of one more color still, the brown.

These five are the **races** of men.

The white is called the **Caucasian** race; the yellow, the **Mongolian** race; the black, the **Negro** race; the red, the **Indian** race; the brown, the **Malay** race.

White men now live in every continent, and control the world.

The people of the Caucasian or white race are not always of fair complexion; those that live in a hot, sunny country are often dark. Thus many of the Arabs have swarthy skins, black eyes, and black glossy hair. The other races also vary a little in color, according to the climate in which they live.

2. How Men Live.—The different people of the earth do not all live in the same way.

Suppose we go to the homes of the wild Indians or Negroes and see how they live. We shall find some of them living in tents made of skins or in rude huts.

Among the wild tribes the people wear little or no clothing, and eat roots, insects, fish, or the wild animals they may be able to trap or kill with clubs, wooden spears, or bows and arrows, for they have not yet learned the use of iron. The women do most of the work, while the men hunt and are fond of fighting.

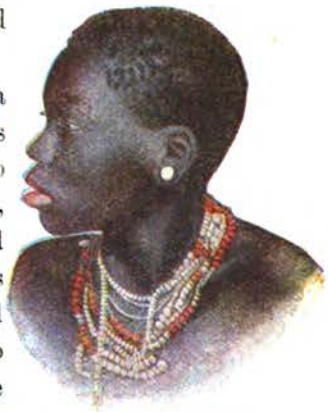
A Mongolian.

An Indian chief.

A Malay in European dress.

Although these three differ in color they are much alike. Notice their high cheek bones, almond shaped eyes, and straight black hair.

People who live in this way are called **savages.**



A Negro in Africa.

After living for a long time like savages some people learned to make pottery from clay, to cultivate grain, and to tame and keep herds of cattle, sheep, and goats. They also learned to weave coarse cloth, and to make tools

Savage life. Photograph by Dr. Cook in South America.

and weapons of metal. They cannot read or write, but they live more comfortably than savages, and are known as **barbarous** people.

Some of these people live in tents, and wander about from place to place with their herds, pitching their tents wherever there is grass for their animals. Many of the wandering desert tribes live in this manner.

We will now visit some people who live very much better than barbarous people. They are the Chinese, who are going to bed as we are getting up.

Instead of tents they have comfortable houses. They build large cities, and make beautiful silks

Barbarous life. Arabs eating dinner before the tent which is their only home.

and many other things. They have books and schools, are industrious, and are adopting many modern customs and inventions. We call people who live like the Chinese partly or **half civilized.**

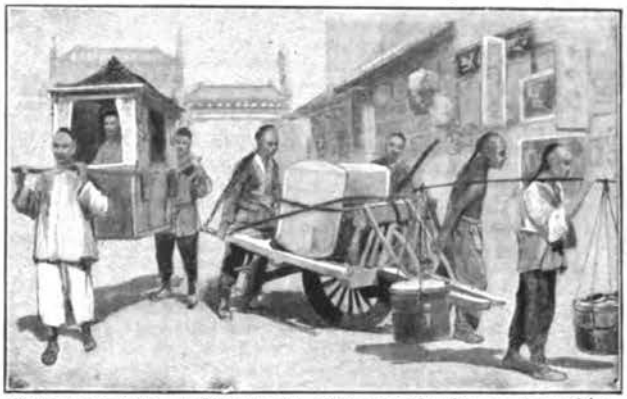
In the countries of the white race there are more books, and better schools and governments than anywhere else. We have churches, railways, steamers, telegraphs, and telephones. We build hospitals, and care for the poor. People living as we do are called fully civilized or **enlightened.**

For Recitation.—Name the five races of men. How do savages live? How do barbarous people live? How do civilized people live? How do enlightened people live?

LESSON XIX.

THE HEMISPHERES.

Preparatory Oral Work.—Let each pupil make a clay sphere and scratch on it some shapes to represent



Half civilized life. A Chinese city. Compare this with one of our cities.

land. Color the rest of the sphere with blue ink or paint to represent water. Divide each sphere into halves. Teach meaning of terms **sphere** and **hemisphere.**

Sometimes the earth is called a sphere. The word **sphere** is only another name that is often used for a body shaped like a ball. When a sphere is divided into two equal parts, each half is called a **hemisphere,** that is a **half** sphere.

Among enlightened people. Notice the large courthouse and the very tall buildings. The city is St. Louis, Mo.

On the following pages we have maps of the two halves of the earth. One half is called the **western hemisphere,** and the other half is known as the **eastern hemisphere.**

Each hemisphere represents half of the earth's surface, with its continents, oceans, and some of its largest islands, mountains, rivers, and other objects.

If we look at the maps of the hemispheres on pages 28 and 29, we shall see that there is much more land in the eastern hemisphere than in the western. Four of the six continents are in the eastern hemisphere. These are **Europe, Asia, Africa,** and **Australia.** The western hemisphere contains only two continents. They are **North America** and **South America.**

Europe and Asia, and the oceans around them, as they would look if seen from the moon.

The blue which we see on the map represents the water. The water has five great divisions or oceans. They are the **Pacific,** the **Atlantic,** the **Indian,** the **Arctic,** and the **Antarctic** oceans.

All these oceans except the Indian are partly in the eastern hemisphere and partly in the western. But the western hemisphere has a much larger share of water than the eastern.

Nearly one-half of all the land surface of the earth is in the North Temperate zone, and more than one-half of all the people in the world live in it.

For Recitation.—What is a hemisphere? Name the hemispheres shown on the map. What continents are in the western hemisphere? What continents are in the eastern hemisphere? Name the oceans. In which hemisphere is the Indian ocean? Where are the other oceans?

LESSON XX.

CONTINENTS AND OCEANS.

1. Having learned the names of the continents and oceans, let us now notice some of the most interesting things about them.

2. **Europe.**—Let us cross the Atlantic and take a flying trip through Europe. Next to Australia it is the smallest of the continents. It lies chiefly in our own North Temperate zone. Most of the people are Caucasians. As we travel among them we hear a great many different languages that we do not understand.

Their cities contain many interesting and beautiful churches, palaces, and museums full of pictures and all sorts of curious things.

Schools and **churches** are to be seen everywhere, except in one part, called Turkey; railways extend in every direction, and steamboats run on all the great rivers. We find the people busy on farms, in workshops, and in factories.

From Europe we buy more things than from any other continent, and to it we sell more than to any other.

3. **Asia.**—Leaving Europe, we pass into Asia. To-day we can make this trip by railroad trains. Asia is the largest continent. It is chiefly in the North Temperate zone. The people on its eastern coast are just half-way round the earth from us. In Asia we find the highest mountains in the world.

More people live on this continent than in all the others together. But there are not so many schools as in Europe and America, and the people are not so enlightened.

They belong chiefly to the yellow, the white, and the brown races. Some wear turbans instead of hats; others wear their hair in braids or queues (*kews*) two or three feet long.

Africa, and the oceans around it.

4. **Africa.**—Suppose we now journey from Asia toward the west, and across the Isthmus of Suez, where shall we be? In Africa—the second continent in size, and the hottest of all. Most of it lies in the Torrid zone, and it contains the largest desert in the world.

Africa is the home of the Negro race. Many of the Negro tribes are ignorant savages. People from Europe have settled along the coast and in parts of the interior, and have introduced railways and schools.

5. Australia.—From Africa let us take a steamship and go east across the Indian ocean. We come to Australia, the smallest of the continents. It is partly in the South Temperate zone and partly in the Torrid.

When it was discovered only black savages lived there, but now most of its people are English. The plants and animals of Australia are unlike those of any other continent. The leaves of some of the trees are turned edgewise. Many trees shed their bark instead of their leaves. Australia produces a great amount of wool, wheat, and gold.

6. South America.—Sailing now across the Pacific ocean, we come to the western continents. Let us first visit South America. It lies chiefly in the Torrid zone, and is very hot and very moist. Here we find one of the largest rivers and the longest mountain range in the world.

South America is the nearest continent to us, but its people are very different from us. They speak languages unlike ours, and are not nearly so busy as we are. No continent has more beautiful flowers, birds, and insects.

South America, and the oceans around it.

7. North America.—Having visited the other continents, we return to North America, and find that, after all, there is no place like home. Our continent is mainly in the North Temperate zone. Its lands are fertile; it produces nearly everything that we need for food or clothing.

It was once the hunting ground of the red man, but more than four hundred years ago the white man came from Europe and took it for himself. The red man now owns little of the land that belonged to his fathers.

North America, and the oceans around it.

8. Atlantic Ocean.—On the Atlantic there are more ships than on any other ocean, because Europe and North America, which lie on either side of it, carry on more trade than the other continents. Ships, carrying passengers and goods, are constantly crossing this ocean.

In the Atlantic there is a great stream of warm water that comes out of the Gulf of Mexico. It is the **Gulf stream.** It flows northeastward, and, broadening out, joins the other Atlantic waters and drifts over to the shores of Europe.

9. The Pacific Ocean was found calm and peaceful by the first European that sailed on it, and this is the reason why he called it Pacific or **peaceful.** It is the largest of all the oceans, and contains more islands than any other.

There is in the Pacific ocean a current of water similar to the Gulf stream. It is called the *Japan current.*

10. The Indian Ocean is sometimes visited by violent tempests called **typhoons;** and if we sail upon it we may be terrified by a waterspout.

Waterspouts are huge columns of water and vapor extending from the sea towards the clouds. They are formed by a whirlwind, larger but much like the small whirlwinds that we see forming columns of dust in the street and roads.

11. The Arctic and Antarctic Oceans are seldom visited by ships. **Icebergs** or mountains of ice float in them.

On page 94 we may learn something about the great streams of ice called glaciers. In the Arctic and Antarctic regions the glaciers flow down into the ocean. Great fragments are broken off and are carried away by the ocean currents. These are icebergs, or *ice mountains.*

For Recitation.—Can you tell anything interesting about Europe? What can you tell about Asia? What can you say about Africa? What can you say of Australia? What have you learned about South America? Tell me something about North America. What have you learned about the different oceans?

WESTERN HEMISPHERE

MAP STUDIES.

What part of the map is north? South? East? West? What two continents are in the western hemisphere? In what direction is North America from South America? Point in the direction in which South America lies from us.

By what isthmus are North and South America connected? What ocean on the east of them? On the west?

What ocean round the North pole? What ocean round the South pole?

What four continents in the eastern hemisphere? What isthmus between Asia and Africa? In what direction is Africa from Asia?

Point in the direction in which Africa lies from us. In what direction is Australia from Asia?

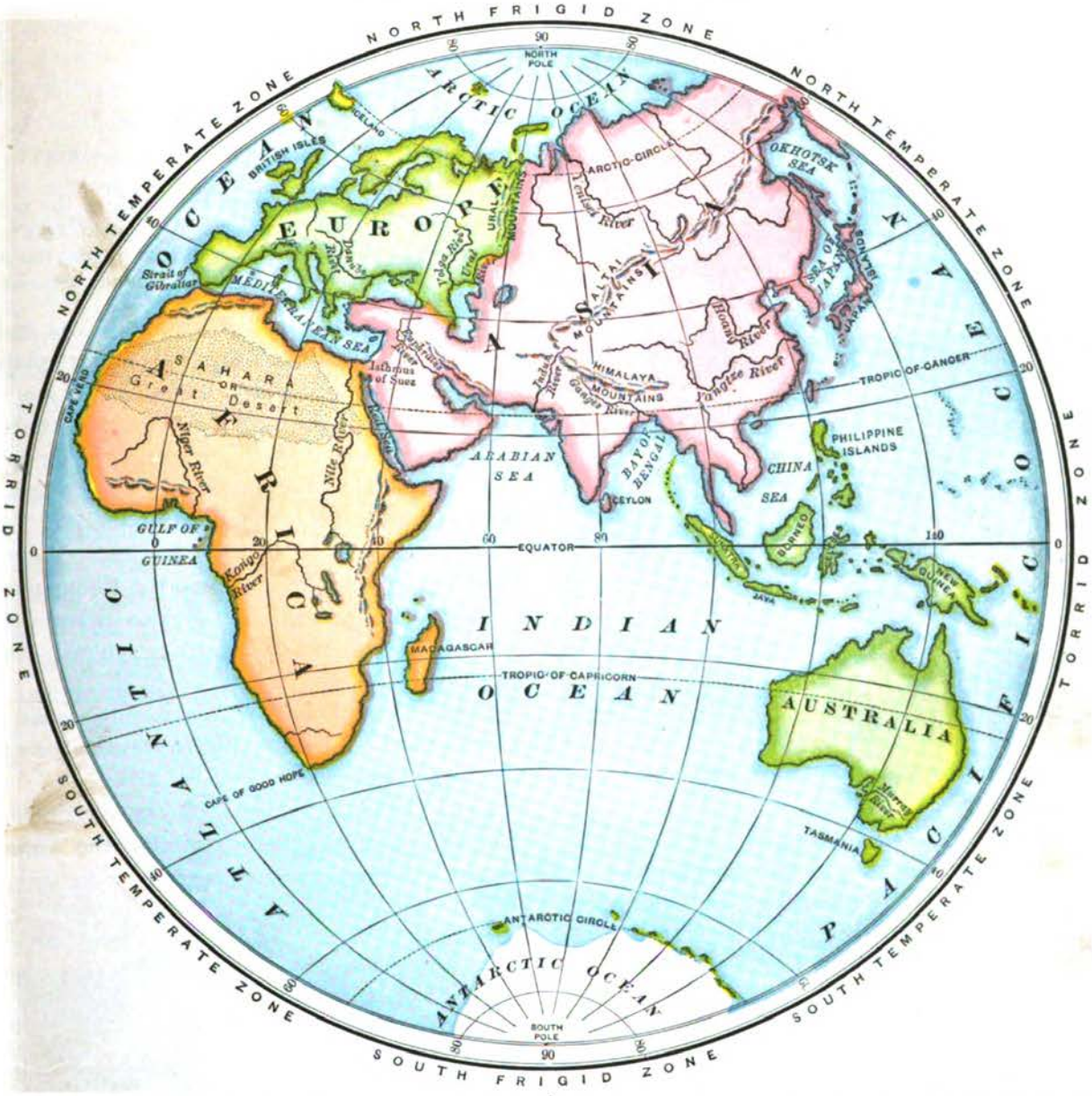
What sea separates Africa and Europe? In what direction is Europe from Africa? Point in the direction in which Europe lies from us.

What ocean east of Asia? What ocean west of Africa? What ocean north of Europe and Asia?

What ocean between Africa and Australia?

What is the heavy black line crossing the middle of the hemispheres from east to west called? *Equator means dividing equally.*

EASTERN HEMISPHERE



What continents lie wholly north of the equator?

What continent lies wholly south of it? Which two are crossed by the equator? Is there more land north or south of the equator?

Which hemisphere contains the larger amount of land? What ocean must be crossed to go from South America to Africa? From North America to Europe?

In what direction is Europe from Asia? Africa from South America? Point in the direction in which Asia lies from us.

In what direction is the north pole from the south pole? The north pole from the equator? The south pole from the equator?

What continents form the Old World? Which form the New World? Point out an island, peninsula, cape.

What oceans would you cross in sailing from Australia westward to South America?

What islands lie between North America and South America? What islands lie between Asia and Australia? What large island east of Africa? Name some islands found in the Pacific ocean. In the Atlantic ocean. In the Indian ocean.

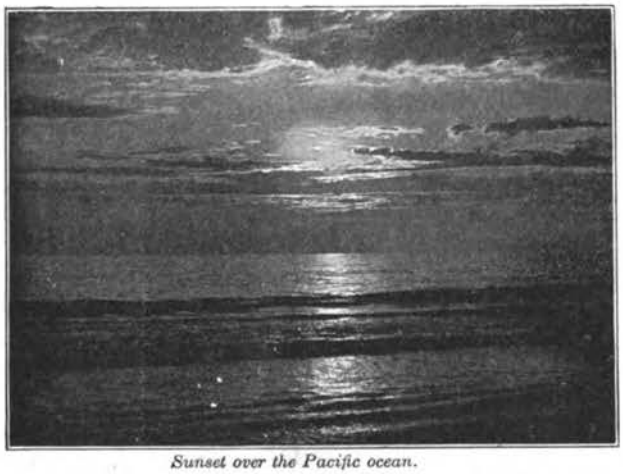
Name some of the large rivers that you see on each of the continents. Name the ocean into which each flows.

What continents are crossed by the Tropic of Cancer? What continents are crossed by the Tropic of Capricorn?

NORTH AMERICA.

LESSON XXI.

1. Position and Boundaries.—North America is the continent on which we live. It is third in size among the continents. It is larger



Sunset over the Pacific ocean.

than Australia and Europe together, but is somewhat smaller than Africa and a little more than half as large as Asia. It lies between the Atlantic ocean on the east and the Pacific ocean on the west. On the north is the cold Arctic ocean; on the south are the warm waters of the Gulf of Mexico and of the Pacific ocean.

Coast-line.—The coast-line of North America is much broken by gulfs and bays on the north and east. Many of these make excellent harbors. The western coast has fewer good harbors than the eastern coast.

2. Climate.—The map of the heat belts (page 17) shows us that our continent extends far into the Frigid zone on the north, while the southern end lies in the hot belt. The middle part of the continent lies in the Temperate zone. It has, therefore, almost every kind of climate and a great variety of plants and animals.

The winds have much to do with the climate. The southern half of the continent receives the warm winds from over the Gulf of Mexico. These bring an abundance of rain. The middle portion is swept by winds from the Pacific ocean, but much of the rain is kept out by the mountains along that coast. In winter, cold winds from the Arctic ocean sweep over the level part of the continent and make the climate very cold.

3. Mountains and Plateaus.—The entire western half of North America is a great plateau region called the **Pacific highlands.** If we look at this region on the map of North America (page 35), we shall see that this region is made up of many smaller plateaus and of long ranges, or rows of mountains, extending all the way from the Arctic ocean to South America. Many of these ranges together make up the **Rocky** mountains. These extend into Mexico where they are called the **Sierra Madre** (sē-er'rah mah'dray), or Mother range.

To the west of the Rocky mountains are shorter ranges called the **Sierra Nevada** (ne-vah'-dah) and the **Cascade.**

Near the eastern shore of the continent is another plateau region containing the **Appala-**

Mountain of the Holy Cross in the Rocky Mountains, Colorado.

chian ranges of mountains. But the plateau is not so wide, nor are the mountains so high as in the western highlands.

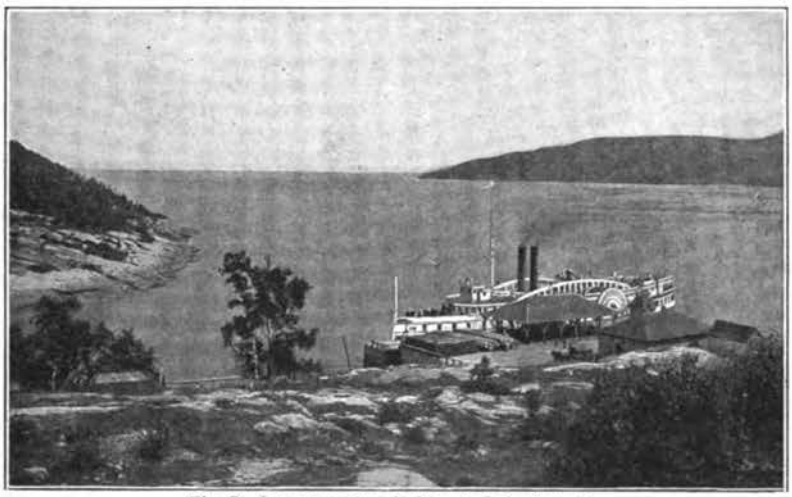
4. Plains.—Now put your finger on the map at the mouth of the Mississippi river, and follow

it up as far as you can. Then trace a line directly north to the shores of the Arctic ocean.

You will thus move your finger through the central part of the continent. In it there are some low mountains and many hills and valleys, but because of its generally smooth surface this region is called the **Great Central plain**.

The northern part of this plain is made up of many islands and peninsulas separated by bays, sounds, and straits. This land is so cold that nobody lives there and the waters around it are frozen most of the year.

Along the shores of the Atlantic ocean and the Gulf of Mexico is a **Coastal plain,** which extends back to the foothills of the mountains. Along the Pacific coast the mountains often come down to the ocean, but in some places there is a narrow plain called the **Pacific plain.**



The St. Lawrence river, looking to Lake Ontario.

5. Rivers.—If you trace along the tops of the mountain ranges shown on page 35, you will find that many rivers begin there. The ranges are the great **divides,** or watersheds, of the continent and cause the water to flow in opposite directions. You will find also that many rivers flow through valleys, which they have cut out for themselves through the mountains. Others flow through the Great Central plain and have many branches. Near the center of the continent you find rivers flowing north and south. This means that there is high ground there which forms a watershed, dividing the Great Central plain into a northern and a southern slope. The southern slope is drained by the Mississippi river and its branches, which form the chief river system of the continent. The northern slope is drained by rivers which flow into Hudson bay and the Arctic ocean. Between the highland region and the coast are many short rivers.

The rivers of the plain are very useful for carrying the products of the country to the sea, where they may be sent in ships to foreign countries. Many of the shorter rivers have swift currents and are not navigable.

6. Lakes.—Find the St. Lawrence river and follow up its course until you come to a large lake. This is one of five lakes which are known as the **Great Lakes.** They are the largest bodies of fresh water in the world. Thousands of ships sail on them, carrying the products of the country. Northwest of the Great Lakes are many others extending in a sort of chain nearly to the Arctic ocean.

For Recitation.—What is the size of our continent? Where is it situated? In what heat belts does it lie? How do the winds change its climate? Compare the coast-line on the east with that on the west. Name the mountain ranges of the Pacific highlands. What mountains are near the Atlantic coast? What can you tell about the Great Central plain? Where is the Coastal plain? The Pacific plain? Where are the largest rivers of North America? For what are they useful? Tell something about the Great Lakes.

LESSON XXII.

1. Divisions.—North America is divided into several parts, or countries. Our own country, the **United States,** is in the middle.

If we travel northward from the United States, we enter the **Dominion of Canada.** If we go northeast from Canada, we come to icy **Greenland** and **Iceland** (Danish America). If we go northwest from Canada, we come to **Alaska,** which belongs to the United States.

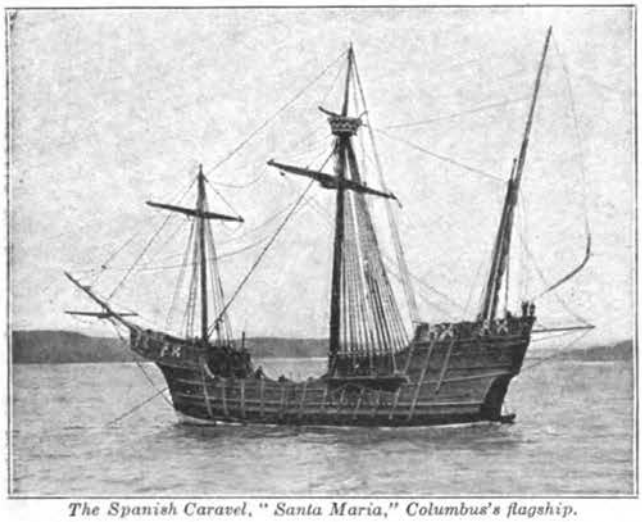
2. Discovery.—In the year 1492—that is, over 400 years ago—Christopher Columbus sailed from a country in Europe called Spain. He had three small ships. He sailed on the Atlantic ocean toward the west, until at last he came to land. It was one of the beautiful islands of the West Indies.

When Columbus reached the shore, the red men, dressed in feathers and decked with gold, came to meet him, offering him fruit and other provisions. Columbus had discovered America.

The continent was named *America* from Americus Vespucius, an Italian navigator.

A market scene in Mexico, where Spanish is the only language spoken.

3. Settlement. — After the discovery of the New World, a great many people from Europe came here to live.



The Spanish Caravel, "Santa Maria," Columbus's flagship.

If we should go to Mexico, Central America, or some of the West Indies, we should hear the people talking Spanish. This is because the Spaniards settled these parts of North America. If we should visit some parts of Canada, we should hear many of the people speaking French. The early settlers there came from France.

In the United States the people speak English. Most of the settlers here were from England.

For Recitation.—Name the divisions of North America. From what countries of Europe did most of the people come who settled North America? Where did the English settlers go? The French? The Spanish?

MAP STUDIES.

What ocean is north of North America? What ocean is east? West? What ocean and gulf are south? What continents are separated by Bering (*bee'ring*) strait?

What are the divisions of North America? In what part of North America is Canada? Point in the direction of Canada. What bay and strait separate Canada and Greenland?

Where is Greenland? Point in the direction of Greenland. What island is east of Greenland?

Greenland and Iceland are a part of North America, but they are owned by *a country in Europe called Denmark. They are therefore called Danish America.*

What river flows from Lake Winnipeg into Hudson bay? Through what river do the waters of Great Slave and Great Bear lakes flow to the ocean?

Where is Newfoundland? What division of land is it? Point in the direction of it.

In what part of North America is the United States? What portion of the United States is nearest to Asia? What river crosses Alaska?

What division bounds the United States on the north? What country on the south? Point in the direction of Mexico. What gulf is east of Mexico?

What two countries nearly inclose the Gulf of Mexico? What peninsula is northeast of the Gulf of Mexico?

What division between Mexico and South America? Where are the West Indies? Name the largest of them.

What sea is south of the West Indies? Of what ocean is it a part? Where is Cape Race? Cape San Lucas?

Exercise with the Scale.—In the left-hand lower corner of the map, you will find a "Scale of Miles." Mark the length of the scale on a piece of paper. Use it as a measure, and tell how far it is from Newfoundland to Vancouver island. How far is it across the Isthmus of Panama? From New York to Havana?

NORTH AMERICA
SCALE OF MILES
0 100 300 500 1000
100,000 SQUARE MILES
ARCTIC OCEAN
PACIFIC OCEAN
ATLANTIC OCEAN
GULF OF MEXICO
CARIBBEAN SEA
BERING SEA
ASIA
GREENLAND
ICELAND
DOMINION OF CANADA
UNITED STATES
MEXICO
CENTRAL AMERICA
SOUTH AMERICA
WEST INDIES
Longitude West from Washington
Longitude East
Point Barrow
Nome
Yukon River
Mt. McKinley
Mt. Logan
Mt. St. Elias
Juneau
Sitka
Alaska (United States)
Queen Charlotte Islands
Vancouver Island
Victoria
Mackenzie River
Great Bear Lake
Great Slave Lake
Arctic Circle
Baffin Bay
Davis Strait
Hudson Strait
Hudson Bay
Cape Farewell
Labrador
Newfoundland
Cape Race
Cape Sable
Nova Scotia
Gulf of St. Lawrence
Lake Winnipeg
Saskatchewan River
Rocky Mountains
Cascade Range
Cape Mendocino
San Francisco
Sierra Nevada
Mt. Whitney
Point Conception
Great Salt Lake
Colorado River
Lower California
Gulf of California
Sierra Madre
Cape San Lucas
Tropic of Cancer
Missouri River
Platte River
Omaha
Chicago
Lake Superior
Lake Michigan
Lake Huron
Lake Erie
Lake Ontario
Niagara River
Quebec
Montreal
Ottawa
Boston
Cape Cod
New York
Philadelphia
Baltimore
Chesapeake B.
Washington
Ohio River
Cape Hatteras
St. Louis
Arkansas River
Red River
Mississippi River
Appalachian Mts.
Bermuda Islands
New Orleans
Florida
Rio Grande
Gulf of Mexico
Bahama Islands
C. Sable
Havana
Cuba
Haiti
Santo Domingo
Island of Haiti
Porto Rico (To U.S.)
Port au Prince
Jamaica
Vera Cruz
Mexico
Colon
Isthmus of Panama
Panama
Bay of Panama
Orinoco River

STUDIES ON THE RELIEF MAP.

The map on the opposite page is intended to show North America as it would look if you were up so high in a balloon that you could not see the trees or houses, but could see only the mountains, hills, valleys, rivers and larger bodies of water. The waters would then look bluish or light in color, the low plains dark green, the mountain tops yellowish brown, and the deep valleys would be in the shadow, just as they are shown on the map.

In what zones or heat belts does North America lie? Turn back to Lesson XII. and read about the zones.

Put your finger on the water lying north of North America. What is its name? Put your finger on the water lying east of North America. What is its name? Put your finger on the water lying west of North America. What is its name?

Find the southern point of Greenland. Trace the Atlantic coast-line of North America as far as the Isthmus of Panama. Notice how many arms of the Atlantic are enclosed so as to form gulfs and bays. Name as many of these arms as you can. Name the peninsulas and islands that enclose them. Name the capes. Cross the Isthmus of Panama and follow the Pacific coast-line of North America to the Arctic ocean. Notice the arms of the Pacific that form gulfs and bays. Name all that you can. Name the peninsulas or islands that enclose them. Which ocean has the greater number of arms? Which coast of North America is better suited for commerce?

Move your finger slowly westward from Cape Hatteras. You come first to a dark green strip which shows level land. This is the Atlantic Coastal plain. Notice which way it extends. Go on slowly westward and you will come to a strip of dark gray color showing the Piedmont, or foothills. Go up these foothills and you come to the Appalachian mountains. Notice that there are several ranges. Can you tell the names of any of these ranges? Cross the mountains into the Great Central plain. Move slowly across the plain. Pass up the hills, and then you are upon the great plateau. There you find the Rocky mountain ranges. What are these mountains called in Mexico? What ranges are near the Pacific coast?

Find the Great Central plain. Find the river that drains the southern part of it. What is the name of the river? Find its mouth and follow it to its source. How many rivers do you find flowing into it from the west? Find the mouth of the first of these rivers and follow it up to its source. Find the second and trace it to its source. Find the third and trace it to its source. Where do you find the sources of these rivers? Find a great river flowing into the Mississippi from the east. This is called the Ohio. Trace it from its mouth to its source. What mountains do you reach? Find two large rivers flowing into the Ohio from the south. Trace these rivers back to their sources. The Mississippi river, with all the rivers that flow into it, makes a river system.

How many rivers can you find that flow down the eastern side of the Appalachian mountains? How many flow into the Atlantic ocean? How many flow into the Gulf of Mexico? How many rivers can you find flowing down from the Rocky mountains on the western side? Into what water do these rivers flow? Follow these rivers back to the mountain tops and notice how close together are the sources of those rivers that flow west and of those that flow east.

Again find the source of the Mississippi river. Just west of it, find the source of another river that flows north into a great lake. This river is called the Red river of the North. Into what lake does it flow? What river flows north from that lake into Hudson bay?

Find the mouth of a great river that flows into the Arctic ocean. Name this river. Follow it up to its source. Name two large lakes that it drains. Find a large river that drains Alaska. Into what water does it flow? These rivers are frozen over about half of each year. The upper part only of the Mississippi river is ever frozen over. Which of these rivers do you think is the more important to commerce? Why?

Start at the source of the Mississippi river; move slowly eastward and count the large lakes. Find the names of these lakes. Water flows from these lakes into a river. What is its name?

Put your finger on those parts of North America that lie in the frigid zone. What sort of climate do the people have there? What plants grow there? (See Lesson XIII.) What animals are found there? (Lesson XIV.) Point out the cold belt of the north temperate zone. What plants grow there? Point out the middle or temperate belt of the temperate zone. What plants grow there? Point out the warm belt of the north temperate zone. What plants grow there? Point out the part of North America that lies in the torrid zone. What sort of climate do the people have there? What plants grow there? Can you find any high mountains in that part of North America that lies in the torrid zone? What effect do these mountains have on the climate? What kind of plants grow half-way up their sides? Why? (See Lesson XII., **last** paragraph.) What kind of plants grow on their tops?

Use this map as suggested in the studies on the opposite page.

HOMES AND PEOPLE.

Turn to the relief map of North America. Pass your finger over the cold belt of the Dominion of Canada, of Greenland and of Alaska. This is the land of the Eskimos. Some Americans and Indians live in Alaska, a few people from Europe called Danes live in Greenland, and a few English and Indians live in the cold belt of Canada, but the country is the home of the Eskimos. You can read about them in Lesson XLV.

Look at the picture of the Eskimos on the opposite page. What sort of country do you think their land is? What sort of climate should you think it has? Put your finger on the dome-shaped house. It is made of snow and ice. It has no windows. Find its door. The Eskimos crawl through the door on their hands and knees. Why do the Eskimos build their houses of ice? Do trees grow near their home? Find the tents. The tents and the poles were brought there on sleds.

How many sleds can you see? How are they drawn over the snow? The Eskimo father is driving away on a sled. Find him. The Eskimo mother is sitting on the bundles. She is talking to her little boy. Eskimo women wear boots just as the men do. A big girl is sitting on the sled, holding her baby brother. Another little girl is in the tent. You could not understand the language of the Eskimos, but many of them can speak a few words of English.

Find the picture of the Indians. These Indians are living in the United States. Some Indians live also in Canada and some in Mexico. What kind of houses do these Indians live in? How are they made? What are they called? Where is the Indian chief? How is he dressed? Can you find the squaws? How do they carry their babies? Where do they cook? Find the fire. What do you think they are cooking now? Would you like to live as the Indians do? Why? The Indians speak their own language, which you could not understand. But many of them can speak English, too.

Find the cowboy. He lives in Texas. How is he dressed? Why is he called a cowboy? Can you find his house? Do you see the cattle? Can you find the rope fastened to his saddle? Can you tell its name and its use?

Find the farmhouse in the United States. This house is in Pennsylvania. The picture is made from a photograph of it. There are many farmhouses like it in the United States. Who do you think the girl is? Where do you think the men are? What do the people that live on farms do to make money? What do you think grows on this farm? Did you ever see a farm? What grew on it?

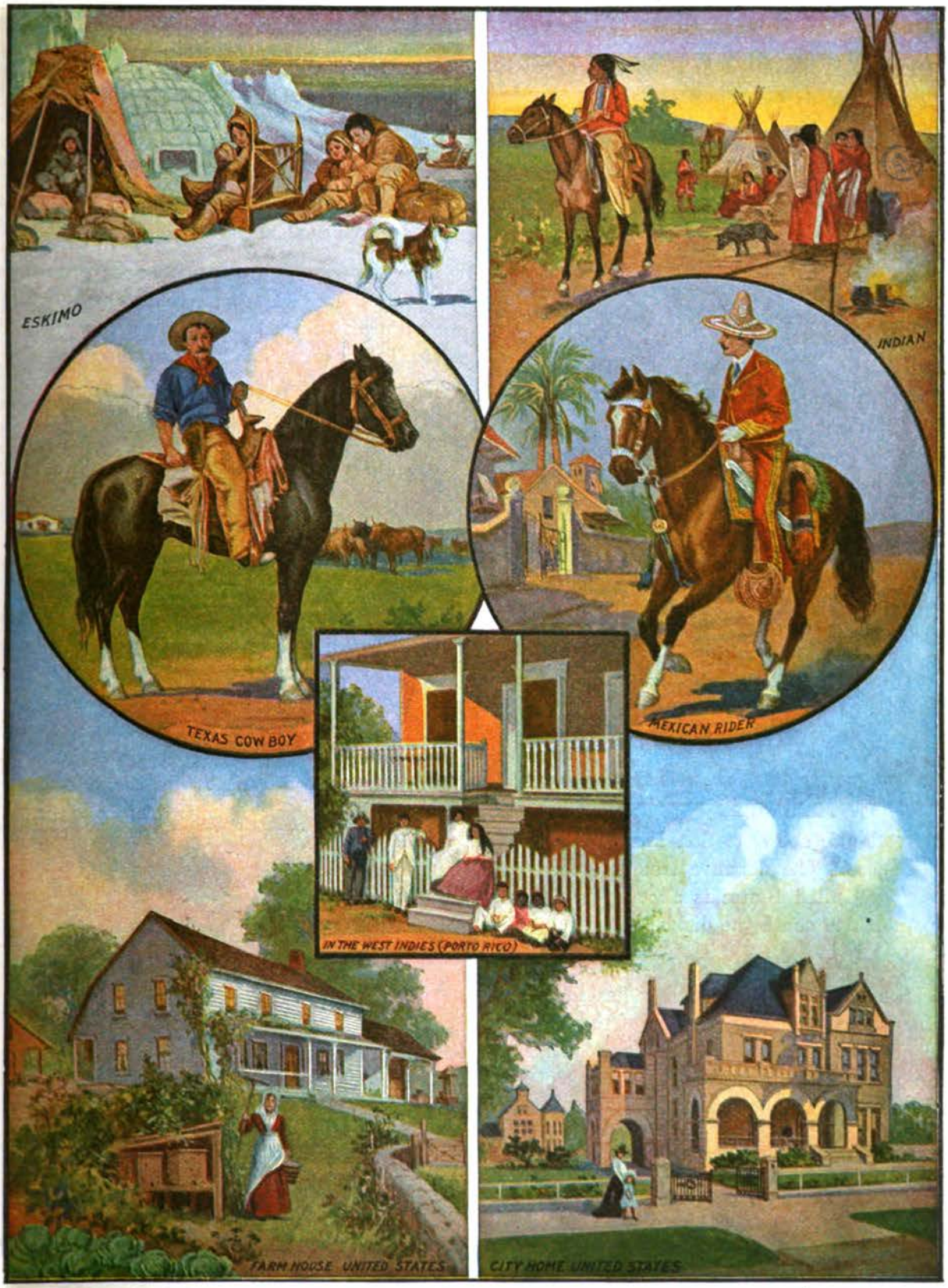
Find the city home in the United States. This house is in New Orleans. The picture is made from a photograph of it. You will find houses very much like this in every large city in the United States. On page 88 find Boston, New York, Washington, New Orleans, St. Louis, Chicago, and San Francisco. On the relief map point out where each city is built. Why are there no cities in the cold belt of Canada? How do you go from one city to another? What do the people in cities do to make money?

What language do we speak in the United States? The people who live in the United States are called Americans. Some Americans have come here from other countries. Do you know any such Americans?

Turn back to the map of North America on page 88. Pass your finger north of the St. Lawrence river; go on north of Lake Superior, and westward to the Pacific ocean. This is the cool belt of the Dominion of Canada. The people that live here are chiefly English or French. They live on rich farms or in large cities, very much as we do in the United States.

On the relief map find the four islands that are called the West Indies. Put your finger on each island and tell its name. On which island is the home in the picture on the opposite page? What is this house built of? It is the home of a coffee planter. His farm lies behind his house. Is it cold or warm in Porto Rico? Porto Rico once belonged to Spain. What language did the people that lived there then speak? To whom does Porto Rico now belong? Turn to Lesson XLVI. and read about the West Indies. Do the gentlemen wear white suits where you live? Are white linen suits cool or warm? Why are they worn in Porto Rico? Turn to page 79 and look at the gentleman and the children in the picture.

Find the Mexican. Where does he live? Find Mexico on the relief map. Is it hot or cold in Mexico? How is it up on the mountains? What sort of saddle has the Mexican? Can you see his blanket? Can you see the silver trimmings on his clothes, on his hat, and on his horse's bridle? Can you find the gate and the house where he lives? Notice the trees growing near. What sort of trees are they? (See Lesson XIII.) Turn to Lesson XLVI. and read about Mexico. What is the Mexican farm called in the picture on page 77? The Spanish language is spoken in Mexico.

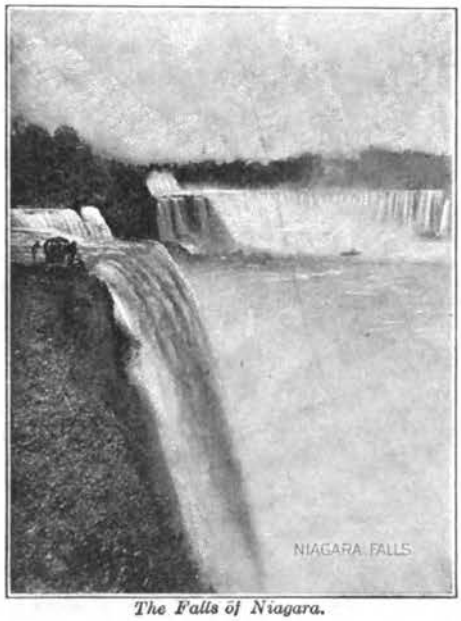


Homes and People of North America. Study these pictures in connection with the descriptions and questions on the opposite page.

THE UNITED STATES.

LESSON XXIII.

1. Name.—Look at the map of the United States. You will find that it shows a large country made up of many parts. These parts are **states**; and because they are *united* into one country, they are called the UNITED STATES. Our country is sometimes called the Union.



The Falls of Niagara.

2. Size.—The United States reaches from the Atlantic ocean to the Pacific ocean. Nearly a week is required to go by rail from New York, on the Atlantic shore, to San Francisco, on the Pacific shore. The distance from east to west across the United States is about 2,800 miles. From north to south the distance is about 1,700 miles.

3. Rank.—The United States has more people than all the other countries of the Western hemisphere together. The products of its farms, mines, and forests are greater than those of any other country in the world. In wealth and power it also ranks among the greatest countries.

For Recitation.—Why is our country called the United States? What is the greatest distance across the United States from east to west? What is the greatest distance from north to south? What rank has the United States among the countries of the world?

LESSON XXIV.

1. Where do we find mountains in our country, and where is the land level?

2. Appalachian Mountains.—Several mountain ranges are near the Atlantic coast. They extend nearly from the Gulf of Mexico to Canada. Taken together, they are called the **Appalachian** mountains.

From them we get much of the coal that we burn in our stoves, and iron from which the stoves are made. The sides of these mountains are covered with forests. In the long valleys between the ranges are rich farming regions.

On the east of the Appalachian ranges are foot-hills known as the **Piedmont Belt.** Between the Piedmont Belt and the Atlantic ocean is a strip of lowland called the **Atlantic Coastal plain.** West of the mountains are plateaus which slope down to the **Great Central plain.**

3. Rocky Mountains.—In the western part of the United States are the **Rocky** mountains. They cross the country from north to south. They are grander than the Appalachians. Many of them are more than two miles high.

The largest rivers in our country have their sources among these mountains.

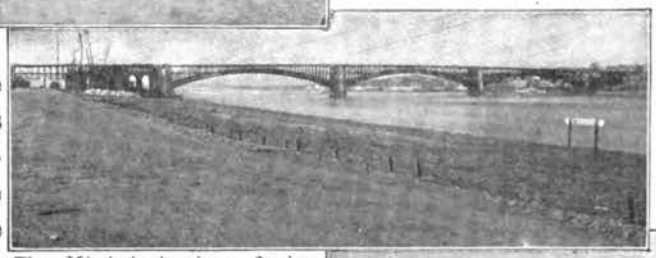
4. Canyons (*can'yons*).—In the Rocky mountain region are the wonderful gorges called **canyons.** They are passages worn through the rocks by rivers. The canyons of the Colorado river are more than a mile deep.

A Canyon in Colorado.

5. Sierra Nevada Mountains.—Still farther west than the Rocky mountains is the **Sierra Nevada** range. It contains some of the highest mountains in our country, and on its western slopes are found the largest trees in the world. North of the Sierra Nevada is the **Cascade** range.

6. The Great plateau from which rise the Rocky mountains on the east, and the Sierra Nevada and Cascade ranges on the west, is called the **Pacific highlands.** It slopes to the Mississippi river on the east, and to the Pacific ocean on the west.

St. Paul, Minnesota, on the Mississippi river.



The Mississippi river, flowing through the Great Central plain at St. Louis, Missouri.

A part of this plateau lying between the Rocky and the Sierra Nevada mountains is completely surrounded with a mountain wall. It is called the **Great Basin,** and in it lies Great Salt lake.

7. Mississippi Valley.—A vast region of nearly level land lies between the Appalachian mountains and the Rocky mountains. It is the southern half of the Central plain. The great Mississippi river drains it, and therefore it is called the Mississippi valley.

For Recitation.—What mountains are in the eastern part of the United States? What mountains are in the western part of the United States? Where is the Great plateau? Where is the Mississippi valley?

LESSON XXV.

1. Mississippi River.—Let us now look at some of the rivers and lakes of our country.

The largest and most useful river is the Mississippi. This is the Indian name. It means Father of Waters, or Great River.

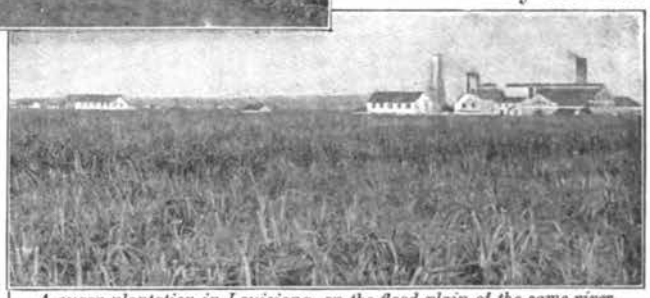
Look at the map. The Mississippi passes through the country from north to south. This is one reason why it is so useful.

Near its source grow great forests. A little farther south are the vast wheat and corn fields of the prairies. Near its mouth it flows through plantations of sugar cane.

The woodman, the farmer, and the planter need one another's produce. The Mississippi helps them to make the exchange. It is thus a useful highway of trade.

"The Father of Waters" has a great many rivers flowing into it. Such rivers are called **tributaries.** They flow down both sides of the valley, coming from the Rocky mountains in the west and from the Appalachians in the east. The Missouri and the Ohio are the most important. Steamboats carry goods up and down the Missouri, the Ohio, and other tributaries.

2. The Great Lakes.—In the northern part of our country are five great lakes. They are like little oceans. When we sail upon them, we are often out of sight of land.



A sugar plantation in Louisiana, on the flood plain of the same river.

They are Lake Superior, Lake Michigan, Lake Huron, Lake Erie, and Lake Ontario. Lake Superior is the largest.

3. Niagara Falls.—Between lakes Erie and Ontario the Niagara river leaps over a precipice, which in one place is 164 feet high. This makes the famous **Falls of Niagara.**

For Recitation.—What is the largest river in our country? Name one of its great uses. Name the Great Lakes. Which is the largest? What waterfalls are between lakes Erie and Ontario?

MAP STUDIES

Compare this map with the map of North America on page 33. Are they on the same scale? If not, which map is on the larger scale?

What distance does an inch represent on each map?

What ocean is on the east of the United States? What ocean is on the west?

What gulf and country are are on the south? What country is on the north?

What four great lakes lie between the Dominion of Canada and the United States?

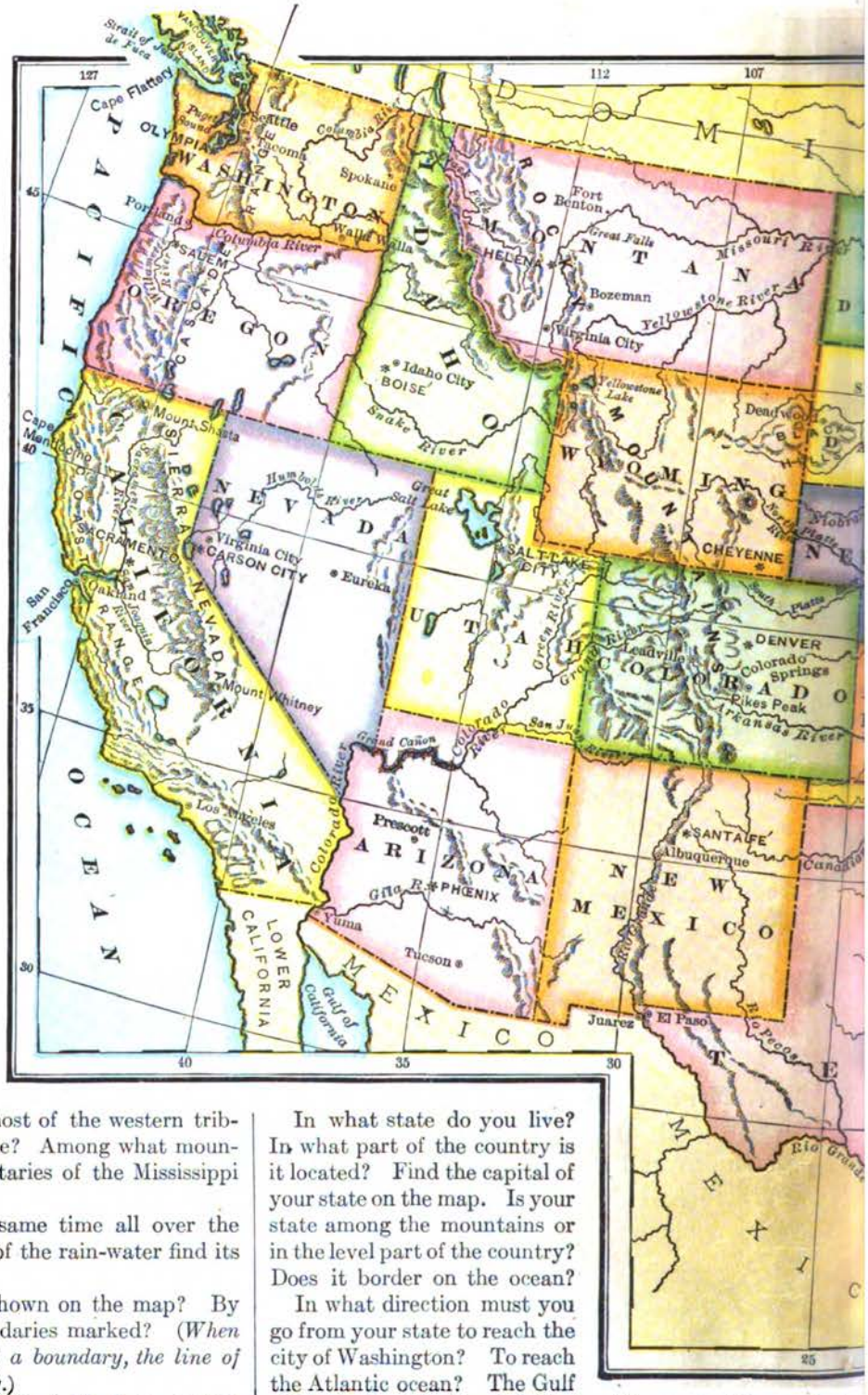
Through what river do the waters of these lakes flow to the ocean?

What mountains are in the eastern part of the United States?

Name some of the ranges of the Appalachian Mountains. In what direction do they extend?

What great mountain range is in the western part of the United States? What three mountain ranges are near the Pacific coast?

What great river flows into the Gulf of Mexico? In what direction does it flow? Which is the largest eastern tributary of the Mississippi river? Which is the largest western tributary?



Among what mountains do most of the western tributaries of the Mississippi river rise? Among what mountains do the great eastern tributaries of the Mississippi river rise?

Suppose it should rain at the same time all over the United States; how would most of the rain-water find its way to the ocean?

How are the different states shown on the map? By what kind of lines are their boundaries marked? (*When a river forms the whole, or part of a boundary, the line of the river alone marks the boundary.*)

Which states border on the Gulf of Mexico? Which border on the Pacific ocean? How many border on the Atlantic ocean?

Washington is the capital of the United States. (*Capitals are marked by a star.*)

Which state is farthest from Washington toward the northeast? Which is farthest toward the southwest? Toward the west?

In what state do you live? In what part of the country is it located? Find the capital of your state on the map. Is your state among the mountains or in the level part of the country? Does it border on the ocean?

In what direction must you go from your state to reach the city of Washington? To reach the Atlantic ocean? The Gulf of Mexico? The Great Lakes? The Rocky Mountains?

Use the scale of miles and tell how far it is from the capital of your state to the city of Washington? From New York across the country to San Francisco? From Pembina, in North Dakota, to Brownsville, in Texas.

How could you go by water from Boston to Galveston? Find out from the scale of miles how many miles you would travel? How could you go by water

from Chicago to New York? (*The Erie Canal connects Buffalo with Albany.*) On what waters would you pass in going from Albany to Memphis? From San Francisco to New York? From Portland, Oregon, to Sacramento? On what rivers would you sail in going from Pittsburg to Kansas City? From St. Paul to Nashville? From St. Paul to Buffalo?

What seaports do you find along the Atlantic coast? Which of these are at the mouths of rivers? What seaports are along the coast of the Gulf of Mexico? What seaports are on the Pacific coast? What cities are on the Mississippi river? On the Ohio river? On the Missouri river? What cities are on the shores of the four Great Lakes? Where is the Grand Canyon? In what state is the Great Salt Lake? Find five capital cities that are located on rivers.

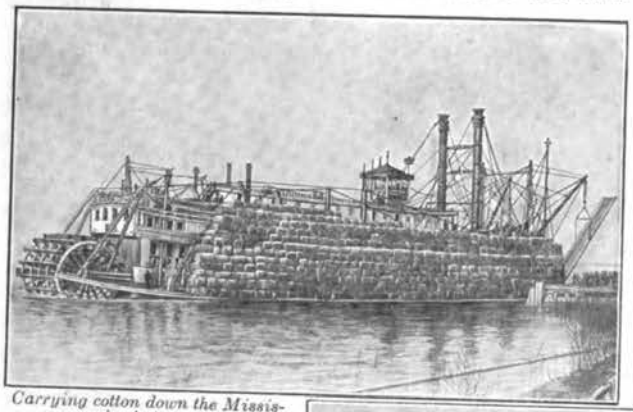
LESSON XXVI.

1. Agriculture is the chief occupation of our people. Let us take a journey extending north from the Gulf of Mexico to Canada, and notice what the planters and the farmers are raising.

Raking and loading hay by machinery in Indiana.

First of all, we pass through the belt of warm Southern states, where snow and ice are seldom seen. Here we find groves of orange and lemon trees, and fields of sugar-cane, rice, and cotton. In some parts of this belt the pineapple and other tropical fruits are grown.

We enter next a belt where the weather is cooler. This belt begins a little above the line marked 35 on the map. We are now surrounded by fields of corn, tobacco, hemp, and wheat. In some parts of this belt grapes and peaches grow abundantly.



Carrying cotton down the Mississippi river.

Still journeying northward, we cross the line marked 40 on the map. We are now in a third belt, in which the winters are very cold. More wheat and hay are grown here than anywhere else in the country. Vast numbers of cattle are raised, and much fine butter and cheese are made. In the far north a great deal of lumber is cut.

Loading cotton at Galveston, Texas, to send abroad.

2. Manufacturing.—In the extreme east a large number of people are employed in manufacturing. Some of them make muslins and calico from the cotton that grows in the South; others make clothing, boots and shoes, watches, clocks, farming tools, and machinery.

3. Mining is an important occupation in the mountainous regions. The United States has silver, gold, and other metals. Its coal will last for many years.

4. Commerce and Transportation.—In all parts of the country, many of our people are engaged in commerce. Some of them buy things made or grown in one part of the United States, and sell them in other parts. This is called **domestic commerce.**

Some merchants sell to other countries the cotton, wheat, and petroleum that we do not need, and buy of them silks, linen, coffee, tea, and spices. This is called **foreign commerce.**

The work of carrying goods and people from place to place is called **transportation.**

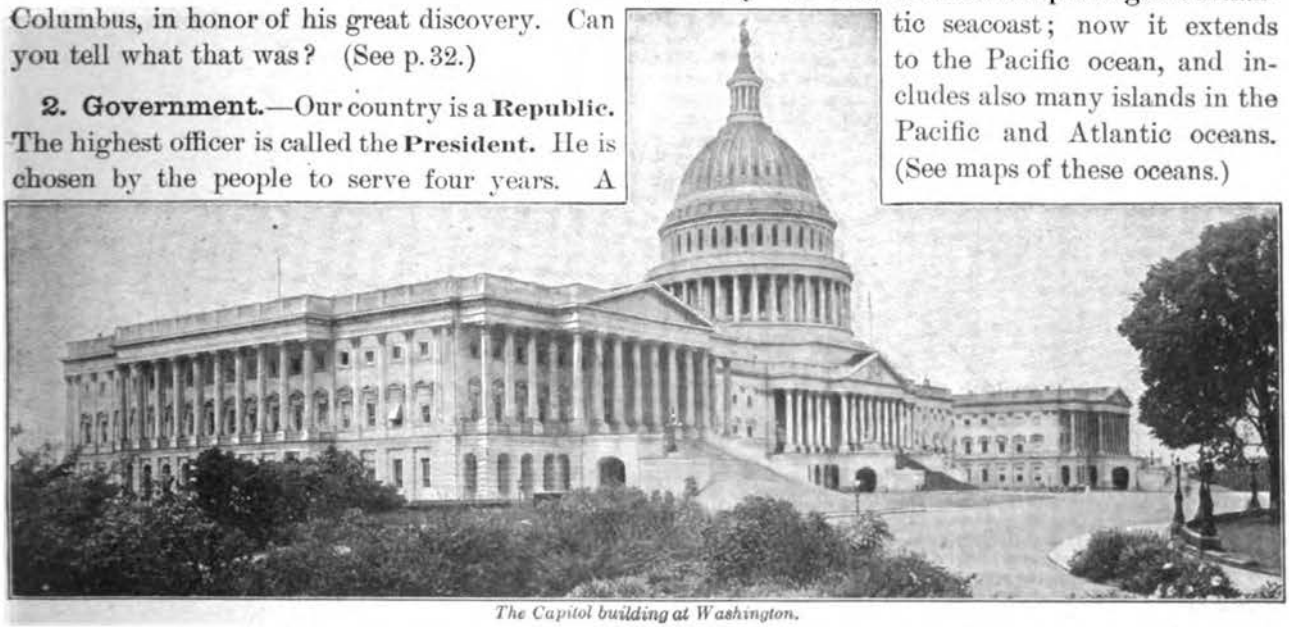
For Recitation.—What is the leading occupation in the United States? What crops are grown in the warmest belt? In the cooler middle belt? In the northern part of our country? Name some of our manufactures; some of our mineral products; our chief exports; our chief imports.

LESSON XXVII.

1. Washington is the capital of our country. It is named after General Washington. He chose the location of the place on which it should be built. Where the city, with its magnificent public buildings, now stands, there was in his days nothing but woods, marshes, and cornfields.

Washington is situated in what is called the **District of Columbia,** which was named after Columbus, in honor of his great discovery. Can you tell what that was? (See p. 32.)

2. Government.—Our country is a **Republic.** The highest officer is called the **President.** He is chosen by the people to serve four years. A certain number of men also are chosen by the people to go every year to Washington to make laws. These men form what we call the **Congress.**



The Capitol building at Washington.

3. History.—A little more than one hundred years ago there were thirteen colonies—that is, settlements—along our Atlantic coast, belonging to England.

The king of England did not govern these colonies well. The people became dissatisfied, and on the 4th of July, 1776, declared, in what is known as the **Declaration of Independence,** that they would not be governed by the king any longer.

War with England had begun. General Washington, who was one of the greatest and best of men, commanded our armies. The war lasted nearly seven years. We were victorious.

The thirteen independent states joined themselves together under one government. They called themselves the **United States.**

4. Growth.—Since that time millions of settlers have come here from various countries of Europe, and the United States has grown in a wonderful manner.

Then there were thirteen states; now there are forty-eight states and two territories. Then our country was only a narrow strip along the Atlantic seacoast; now it extends to the Pacific ocean, and includes also many islands in the Pacific and Atlantic oceans. (See maps of these oceans.)

Then there were no canals, railroads, nor steamboats; now steamers ply on every large river, and railroads have crossed the continent. Then there were only three million people; now there are about ninety millions, not counting those in our island regions.

5. Sections of the United States.—The states and territories are divided into the following groups or sections: The New England states, the Middle Atlantic, the Southern, the Central, and the Rocky Mountain and Pacific. The territories are Alaska and Hawaii.

For Recitation.—What and where is the capital of our country? What form of government has our country? Name the highest officer of our government. What body makes the laws of the United States? How many English colonies were once on the Atlantic coast? What did they do? How many states and territories in the United States?

THE NEW ENGLAND STATES.

LESSON XXVIII.

Building ships at Bath, Maine.

1. The New England States.—Now that we have glanced at the whole of our country, suppose we make a visit to the New England states.

2. Name.—One of the first things that will excite our curiosity is the name. Why are these states called New England? About three hundred years ago Captain John Smith, of England, when searching for whales, sailed to the coast of this region. He explored a part of the country, made a map of it, and called it New England after his old home, England.

Copyright, 1894, H. G. Peabody.

Crawford Notch in the White mountains, New Hampshire.

3. Plymouth Colony.—In 1620, a few years after Captain Smith's visit to New England, a small band of brave men came over in a little vessel called the *Mayflower*. After a rough voyage they landed on the coast of Massachusetts at a place which they called Plymouth (*plim'uth*).

Here they made the settlement that is known as **Plymouth Colony.** They have been called The Pilgrim Fathers.

In the early years of the colony they endured great hardships. Sometimes they were almost starved. Still they persevered.

More settlers came. Boston and other towns were founded, and New England steadily grew in population.

4. The New England States are six in number. They are Maine, New Hampshire, Vermont, Massachusetts, Connecticut (*kon-net'-e-kut*), and Rhode Island.

They are in the northeastern corner of the country. Can you find them on the map of the United States?

For Recitation.—Why was this section called New England? Who made the most important settlement in New England? What colony did they found?

LESSON XXIX.

1. Surface.—Most of New England is hilly. Parts of it are mountainous. The country is very unlike the level land of the prairies.

The mountains belong to the Appalachian ranges. In Vermont and Massachusetts they are called the Green mountains. In New Hampshire they are called the White mountains.

Winter on Boston Common. When Boston and other New England towns were first settled, a large tract of land was set aside in which all the settlers could pasture their cattle in "common." When the settlements grew into cities, the commons became parks, and Boston Common is a beautiful park. The dome of the state capitol may be seen among the trees.

The White mountains are the highest in New England. They are famous for their beautiful scenery, and are often visited by travelers.

2. Climate.—The winters of New England are long and very cold.

Many of the rivers, lakes, and ponds are frozen over, sometimes to the depth of two or three feet.

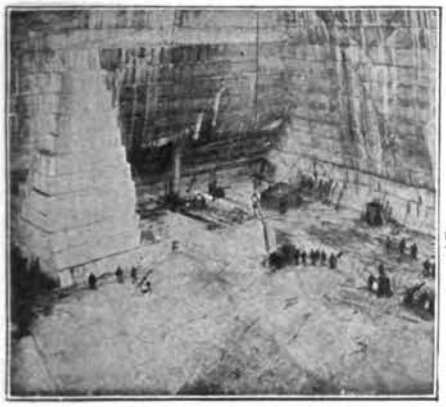
Ice-harvesting on the Kennebec river in Maine.

Large quantities of ice are gathered. This is stored away until summer, when it is used at home or shipped to the warmer parts of our own country.

Maine is famed for its ice crop.

3. Productions.—Among the **mineral** products of New England, the granite of Massachusetts, Vermont, Maine, and Connecticut, and the marble of Vermont are widely known.

The New England **farms** are small, but produce a great variety of crops. The chief products are potatoes, hay, oats, corn, and fruits. Wheat is raised, but not enough to supply the wants of New England itself.



Quarrying marble at Proctor, Vt. The lines which you see on the sides of the quarry show where the blocks of marble have been cut out.

Immense quantities of the potatoes grown are used for the manufacture of starch.

The horses, cattle, and sheep that pasture on the grassy hillsides of Vermont are famous. The butter and cheese made in this state are among the very best.

Making maple sugar in Vermont. Bringing sap in from the grove to be boiled. Notice how the pails are fastened to the trees to receive it.

4. Maple Sugar.—An interesting thing done by some of the farmers is the making of maple sugar.

In the spring the sap or juice of trees begins to rise. The farmers bore holes in the trunks of the sugar-maple trees, put in little tubes of wood, and catch the sap in pails placed to receive it. The sap is then poured into large iron kettles and boiled. A large part of the water is boiled away, and the sap becomes syrup. More boiling turns the syrup into sugar.

Logs floating down the Androscoggin river, near Berlin, N. H.

5. Lumbering.—There are great forests in Maine, New Hampshire, and Vermont, where many people are employed during the winter months in what is called **lumbering.**

The lumbermen go into the forests and live in log cabins. They cut down the trees and haul the logs over the snow to the banks of the frozen streams. When spring comes and the ice melts,

the logs are floated down the rivers to saw mills, where they are cut into boards.

Thousands of logs descend the Penobscot river to the city of **Bangor,** which is the greatest lumber market of New England.

For Recitation.—Name the principal mountains of New England. What can you say of the climate of New England? What do the New England farmers chiefly raise? How are maple syrup and maple sugar made? What states are famed for lumbering? Name the great lumber market of New England.

MAP STUDIES.

New England States: Capitals and Chief Cities.

States.	*Capitals.*	*Chief Cities.*
Maine,	Augusta,	Portland.
New Hampshire,	Concord,	Manchester.
Vermont,	Montpelier,	Burlington.
Massachusetts,	Boston,	Boston.
Connecticut.	Hartford,	New Haven.
Rhode Island.	Providence.	Providence.

In what part of the United States is New England? How many New England states are there? Which is the most northern? Which is the most southern? Which is the largest? The smallest? *Rhode Island is also the smallest state in the Union.* Which of these states has no seacoast? *For this reason Vermont is called an* inland *state.*

Cotton mills in Manchester, N. H.

What mountains are in Vermont? In New Hampshire? Where is Mount Ka-tah'-din? Which is the longest river of New England? Between what two states does the Connecticut river run? Into what does it flow? *The Connecticut valley has the best land in New England, and is famous for its tobacco crop.* Which two of the rivers of Maine are the largest? *The Kennebec river is noted for its salmon.* What river forms a part of the northern boundary of Maine? What river is the outlet of Lake Winnepesaukee (*win-ne-pe-sok'-ke*)? *The Merrimac river is famed for the number of factory wheels that it drives.*

What cape is on the coast of Massachusetts? What body of water lies south of Connecticut? What island is south of this sound? Where is Massachusetts bay? What capital city is upon it? *Cambridge, a city near Boston, contains Harvard University.* Where is Narragansett bay? *Newport, a famous summer resort, is on Narragansett bay.* Where is Casco bay? What commercial city is on Casco bay?

On what river is Augusta? What city on the Penobscot river is the great lumber market? On what river is Concord? Montpelier?

In what state do you live? If not in New England, in what direction is New England from you? In what direction is Maine from Connecticut? Rhode Island from Vermont? Portland from Boston? Worcester from Boston? New York from Boston?

Suppose you were on a steamboat going up the Connecticut river, in what direction would you be going? In what direction do the Green mountains extend?

Scale.—Which is larger, the scale of this map or that of the map of the United States? What does an inch represent on this map? What does an inch represent on the map of the United States? Use the scale and measure the distance from Boston to Portland.

Map Drawing.—Connecticut has simple boundary lines, and it may be well to let the class copy the map on this state upon their slates, and afterward try to draw it from memory.

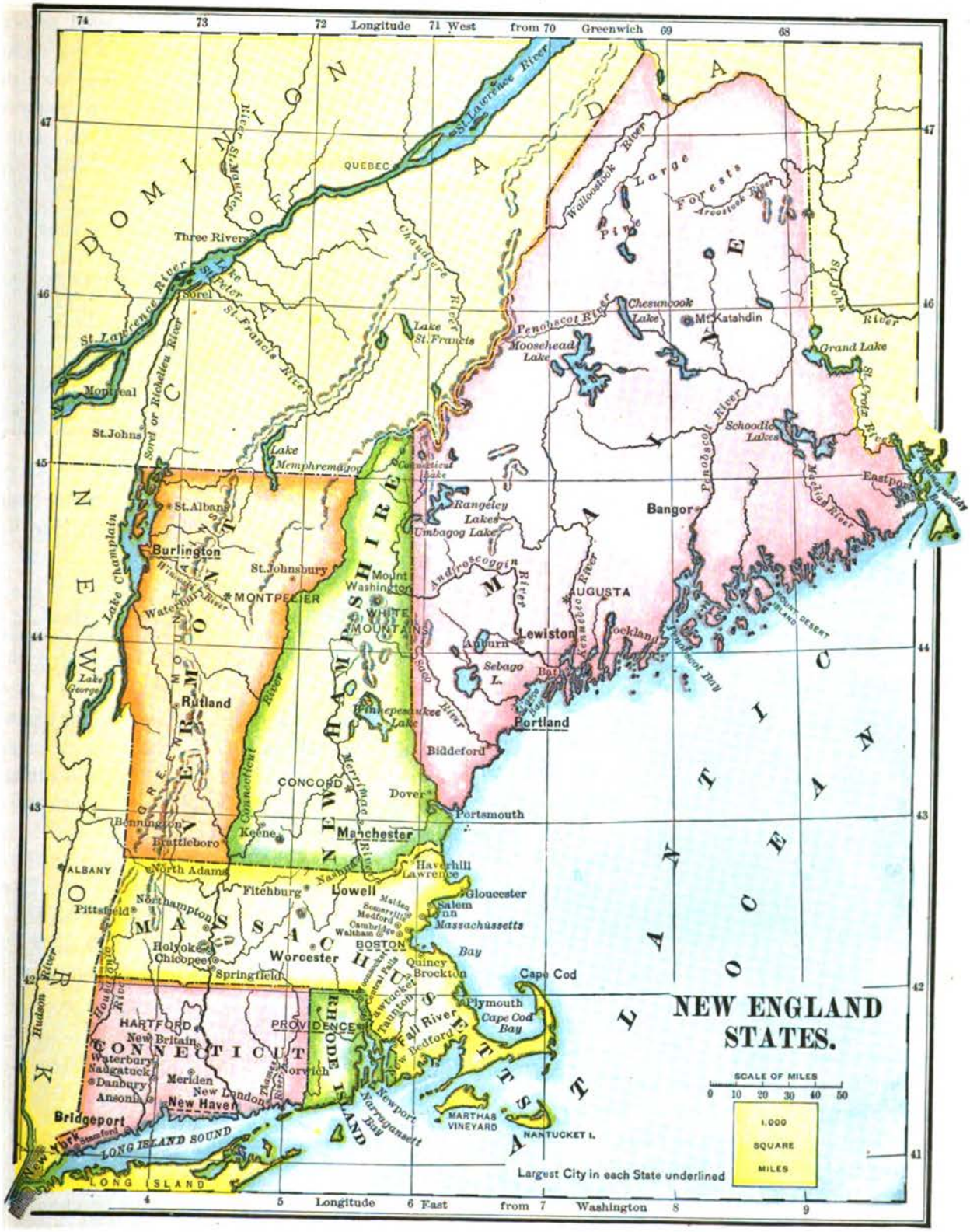
Review.—By way of review, four columns may be put on the blackboard; the first for the name of each state, the second for the largest river in each, the third for the capital, the fourth for the chief city. These should be called for from the class, and should be written in their appropriate columns.

LESSON XXX.

1. **Manufacturing** is the chief business of New England. Many of the rivers run swiftly down to the sea, and thus afford a great deal of water power. This has led many people to become manufacturers.

They have built mills and factories along the banks of many of the streams. Cotton and woolen cloths are made, clothing, boots and shoes, machinery and hardware, watches, clocks, and many other useful articles.

2. **A factory** is a large building in which things are made with the aid of machinery. Boots and


NEW ENGLAND STATES.
Longitude 71 West from 70 Greenwich
Longitude 6 East from 7 Washington
DOMINION OF CANADA
QUEBEC
Three Rivers
Sorel
St. Lawrence River
St. Francis River
Lake St. Francis
Chaudiere River
Montreal
St. Johns
Sorel or Richelieu River
Lake Memphremagog
Connecticut Lake
Lake Champlain
St. Albans
Burlington
St. Johnsbury
MONTPELIER
Winooski River
Waterbury River
Mount Washington
WHITE MOUNTAINS
Androscoggin River
AUGUSTA
Lewiston
Auburn
Sebago L.
Kennebec River
Rockland
Penobscot Bay
MOUNT DESERT ISLAND
Lake George
Rutland
Pinnepesaukee Lake
Saco River
Portland
Biddeford
CONCORD
Dover
Portsmouth
Merrimack River
Connecticut River
Keene
Manchester
Bennington
Brattleboro
ALBANY
North Adams
Haverhill
Lawrence
Fitchburg
Lowell
Gloucester
Salem
Pittsfield
Northampton
Massachussetts
Holyoke
Chicopee
Worcester
BOSTON
Quincy
Bay
Springfield
Brockton
Cape Cod
Plymouth
Cape Cod Bay
Taunton
Fall River
New Bedford
HARTFORD
New Britain
PROVIDENCE
CONNECTICUT
RHODE ISLAND
Waterbury
Naugatuck
Danbury
Meriden
Norwich
New London
Ansonia
New Haven
Bridgeport
Stamford
LONG ISLAND SOUND
Narragansett Bay
Newport
MARTHAS VINEYARD
NANTUCKET I.
LONG ISLAND
ATLANTIC OCEAN
Hudson River
Housatonic River
Thames River
Androscoggin River
Penobscot River
Kennebec River
Aroostook River
Wallostook River
Large Pine Forests
Chesuncook Lake
Mt Katahdin
Moosehead Lake
Grand Lake
St. John River
St. Croix River
Schoodic Lakes
Eastport
Bangor
Rangeley Lakes
Umbagog Lake
SCALE OF MILES
0 10 20 30 40 50
1,000 SQUARE MILES
Largest City in each State underlined

shoes, cotton and woolen goods, bicycles, automobiles, lead-pencils, etc., are made in factories.

The weaving-machines work almost like human beings. If a thread breaks, the machinery stops until somebody comes and mends the thread. Sometimes several thousand persons are employed in a single factory.

3. Manufacturing Cities. — **Lowell, Lawrence, Manchester,** and **Nashua** are all famed for their cotton mills. They are on the Merrimac river, which moves more machinery than any other river in the world.

Fall River is celebrated for its printed cotton cloths. **Worcester** (*wŏŏs'ter*), manufactures more wire rope than any other city in the Union. At **Springfield** there is an armory where rifles are made for the armies of the United States. **Holyoke** is noted for paper mills. **Lynn, Haverhill,** and **Brockton** manufacture shoes; and **New Bedford, Biddeford,** and **Lewiston,** cotton cloth. **Providence** is the leading city in the United States for the manufacture of jewelry and silverware. **Pawtucket** has the oldest cotton mills in the United States. **New Haven** is noted as the seat of Yale University. **Hartford** is noted for its insurance business, and for the manufacture of firearms and automobiles. **Waterbury** has many brass foundries.

In Gloucester harbor. In the foreground are the racks on which the fish are drying.

"Boston Light" in Boston harbor, Mass.

4. Commerce.—The long and jagged seacoast of New England affords many fine harbors. Wherever there is a good harbor, we find a town or a city, and the people actively engaged in commerce.

Ships are busy carrying ice, lumber, and numerous manufactured articles to various ports of the United States. Railroads also connect New England with every part of the country.

Scene in Newport harbor, R. I.

Thus the cotton weavers of Lowell and Fall River, and the shoemakers of Lynn, can send their goods readily to cities and towns all over the land.

5. Commercial Cities.—The leading commercial city is **Boston.** It is the largest city in New England and noted for schools and libraries. It has a large trade in wool and leather, and exports many goods to foreign countries.

Portland has the finest harbor on the Atlantic coast. Grain and cattle are shipped to Europe through Portland when the mouth of the St Lawrence river is frozen. **Newport** also has a splendid harbor, and is famed as a summer resort.

6. Fisheries.—Many people on the New England coast are fishermen. They catch large quantities of cod and mackerel. **Gloucester** (*glos'ter*) and Boston are the chief fishing-ports.

For Recitation.—What is the chief occupation of New England? Name the principal articles manufactured. What are the leading manufacturing cities? Tell in what state each of these cities is found. What are the chief occupations along the seacoast? Name the leading commercial cities. What are the principal fishing ports of New England?

THE MIDDLE ATLANTIC STATES.

LESSON XXXI.

1. Middle Atlantic States.—Leaving New England, let us visit the Middle Atlantic states. All of them except two lie along the Atlantic coast, and are between the New England states on one side and the Southern states on the other. Hence they are called **Middle Atlantic.**

View of the Hudson river, named for Henry Hudson, the first white man who ever sailed on it. It is one of the most beautiful rivers in the world.

These states are New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, and West Virginia. New York and Pennsylvania are the most populous states of the Union and are also first in manufactures.

2. Early Settlements.—The first permanent English colony in America was the one established at Jamestown, in Virginia, in 1607. Virginia is thus the oldest of the states, and is sometimes called the **Old Dominion.**

In 1609 Henry Hudson, an Englishman, discovered the Hudson river. A few years after this settlers came from Holland, and founded Albany on the Hudson and New Amsterdam on Manhattan island. This last was the beginning of what is now the city of New York. In 1664, when England took possession, she changed the name New Amsterdam to New York.

The New Jersey shore, showing crowds of people at Atlantic City bathing in the waters of the Atlantic ocean.

In 1682, more than two hundred years ago, William Penn, an English Quaker, established a colony where Philadelphia now stands. The country was called Pennsylvania, or *Penn's Woods.*

In 1634 Maryland was settled by some English Roman Catholics sent over by Lord Baltimore, for whom the city of Baltimore was named.

New Jersey was first settled by the Dutch, and

Baltimore.—A view of Mount Vernon Place. The homes of some of the richest citizens are on that street.

Delaware by Swedes along the Delaware river. But the Swedish settlements became a part of the English colonies.

For Recitation.—Where was the first permanent settlement made? By whom was New York settled? Who settled Pennsylvania? By whom was Maryland settled? Where did the Swedish colonists settle?

MAP STUDIES.

Middle Atlantic states. Capitals and Chief Cities.

States.	*Capitals.*	*Chief Cities.*
New York,	Albany,	New York.
New Jersey,	Trenton,	Newark.
Pennsylvania,	Harrisburg,	Philadelphia.
Delaware,	Dover,	Wilmington.
Maryland,	Annapolis,	Baltimore.
Virginia,	Richmond,	Richmond.
West Virginia,	Charleston,	Wheeling.

In what direction are the Middle Atlantic states from New England? Which two border on the Great Lakes? What states bound New York on the east? On the south? What two lakes and rivers are on the northwest?

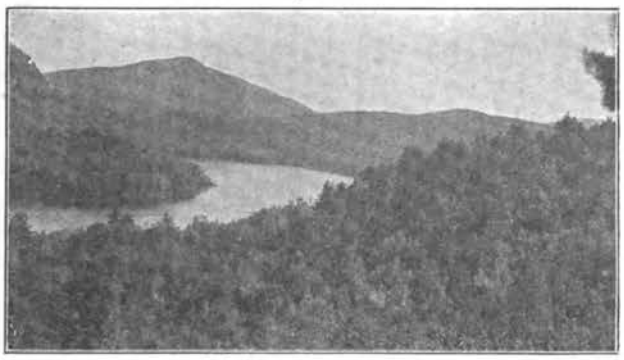
By what river are the two lakes connected? In what direction does it flow? What makes Niagara river famous? What river forms the outlet of the Great Lakes? What is its direction?

What lake is between New York and Vermont? What lake is south of Lake Champlain (*sham-plain*).

Both of these lakes are famed for their beautiful scenery. Many travelers visit them every year.

What mountains are in New York? What important river rises in the Ad-i-ron'-dack mountains? In what direction does it flow? Measure its length by the scale of miles. What is the principal tributary of the Hudson river?

What river and lake does the Erie canal connect? How then can a boatload of wheat be brought from Lake Erie to New York city?



A lake in the Adirondacks.

What cities are at the ends of the Erie canal? Where is New York city? Point toward it.

What mountains do you find in Pennsylvania? What river separates Pennsylvania from New Jersey? Into what does it flow?

What river rises in New York and crosses Pennsylvania? What two rivers form the Ohio? What city is at their junction?

The Natural Bridge, Virginia.

The Allegheny river passes through the region from which we get petroleum, or rock-oil.

On what river is the capital of the state? What great city is at the junction of the Delaware and Schuylkill rivers? Its name means —*brotherly love. It was founded by Quakers.* What city is on Lake Erie?

What river is between New Jersey and Pennsylvania? What cape forms the southern extremity of New Jersey? Where is Long Branch? (See small map.) *Cape May and Long Branch are popular watering places.* What large city of New Jersey is opposite New York city? Where is Newark?

On what river is Wilmington? As you pass down Delaware bay to the ocean, what state is on your right hand? On your left? Suppose you go westward or southward from Delaware, what state do you enter?

What mountains cross this state? What bay and river divide it into two parts?

What two cities are on the bay? Which of them is the capital? Where is Cumberland? Frederick?

What river separates Maryland from Virginia? What district is situated on this river? What state is on three sides of the District of Columbia?

What noted city does this district contain? Point toward Washington.

Crossing the Potomac from Washington, what state do you enter? What mountain range separates Virginia from Kentucky?

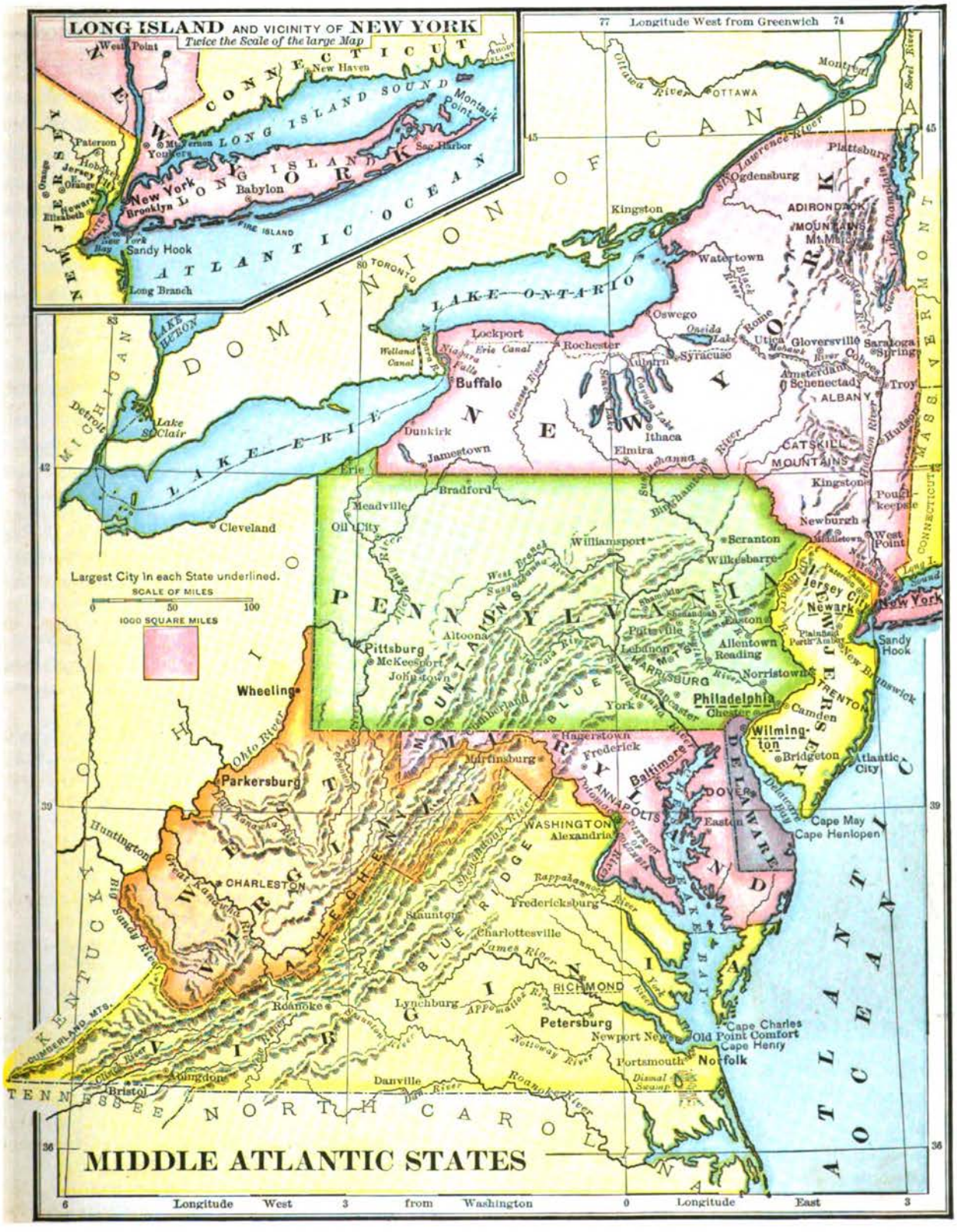
What mountains are between Virginia and West Virginia? What range crosses Virginia?

What rivers break through the Blue Ridge? What city is on the Appomattox river? What large city is on the James river? Suppose you sail in a steamer from Richmond, Va., to the Atlantic ocean, what two seaports would you pass? What bay would you cross?

Between what capes would you sail? In what state are these capes? In what directions would you sail in going from Richmond to New York city?

Cross the Alleghenies from Virginia: what state do you enter? What river forms the northwestern boundary of West Virginia? The southwestern? On what river is Wheeling? Where is Charleston? Parkersburg?

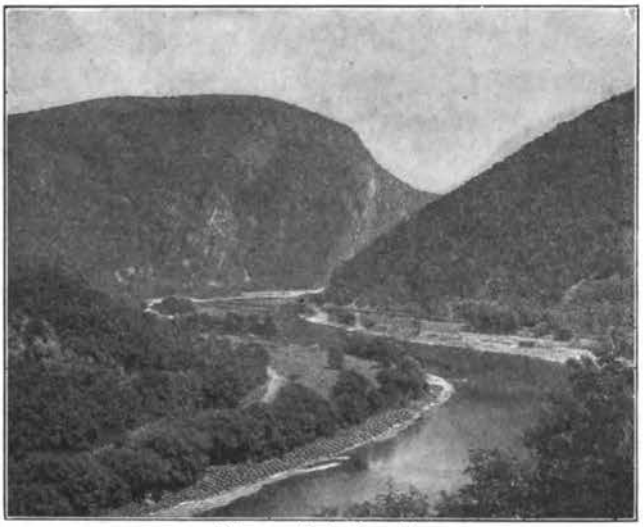
Review by placing on the blackboard a table for the Middle Atlantic states similar to the one suggested for the New England states.


LONG ISLAND AND VICINITY OF NEW YORK
Twice the Scale of the large Map
77 Longitude West from Greenwich 74
45
43
42
39
36
83
80
Largest City in each State underlined.
SCALE OF MILES
0 50 100
1000 SQUARE MILES
MIDDLE ATLANTIC STATES
6 Longitude West 3 from Washington 0 Longitude East 3
DOMINION OF CANADA
ATLANTIC OCEAN
LAKE ONTARIO
LAKE ERIE
LAKE HURON
LAKE St. Clair
NEW YORK
PENNSYLVANIA
NEW JERSEY
DELAWARE
MARYLAND
WEST VIRGINIA
VIRGINIA
OHIO
MICHIGAN
KENTUCKY
TENNESSEE
NORTH CAROLINA
CONNECTICUT
MASSACHUSETTS
VERMONT
Ottawa River
OTTAWA
Montreal
St. Lawrence River
Ogdensburg
Plattsburg
Lake Champlain
Kingston
ADIRONDACK MOUNTAINS
Mt. Marcy
Watertown
Black River
Hudson R.
Oswego
Oneida Lake
Rome
Utica
Mohawk River
Gloversville
Saratoga Springs
Schenectady
Troy
ALBANY
Hudson River
Lockport
Erie Canal
Rochester
Niagara Falls
Welland Canal
Buffalo
Syracuse
Auburn
Seneca Lake
Cayuga Lake
Genesee River
Amsterdam
CATSKILL MOUNTAINS
Kingston
Poughkeepsie
Newburgh
West Point
Middletown
Long I.
Sound
Dunkirk
Jamestown
Ithaca
Elmira
Susquehanna River
Binghamton
Erie
Bradford
Meadville
Oil City
Cleveland
Williamsport
Scranton
Wilkesbarre
Lackawanna River
Jersey City
Newark
New York
Sandy Hook
Pittsburg
McKeesport
Johnstown
Altoona
Pottsville
Lebanon
Allentown
Reading
Easton
Delaware River
Shenandoah
Schuylkill River
Susquehanna River
West Branch
Norristown
HARRISBURG
Philadelphia
Chester
Camden
TRENTON
New Brunswick
Plainfield
Perth Amboy
Wheeling
Ohio River
Parkersburg
Hagerstown
Frederick
Martinsburg
Baltimore
ANNAPOLIS
Wilmington
Bridgeton
Atlantic City
Cape May
Cape Henlopen
Easton
DOVER
Delaware Bay
Huntington
Great Kanawha River
CHARLESTON
WASHINGTON
Alexandria
Potomac River
Shenandoah River
Rappahannock River
Fredericksburg
Staunton
Charlottesville
James River
RICHMOND
York River
Lynchburg
Roanoke
Petersburg
Newport News
Old Point Comfort
Cape Charles
Cape Henry
Norfolk
Portsmouth
Dismal Swamp
Danville
Roanoke River
Dan River
Bristol
Kingsport
Cumberland Mts.
Sandy River
Clinch River
Big Sandy River
Kanawha River
Monongahela River
Allegheny Mts.
Blue Ridge Mts.
Appomattox River
Nottoway River
Chesapeake Bay
Long Island Sound
Montauk Point
Sag Harbor
Babylon
New York
Brooklyn
Long Island
Fire Island
Sandy Hook
Long Branch
Newark
Jersey City
Paterson
Hoboken
Orange
Elizabeth
West Point
New Haven
Yonkers
Mt. Vernon
New York Bay
Raritan Bay
Staten Island

LESSON XXXII.

1. Surface.—Along the ocean the land of these states is level. Some distance from the seashore it begins to rise, and we find ourselves at first among hills, then among mountains.

We rise higher and higher until we reach at last the tops of the Blue Ridge and Allegheny ranges. In New York are the Catskill and the Adirondack groups, famous as summer resorts for people from the cities.



Delaware Water Gap, Pa.

The level land along the ocean is a part of the **Atlantic coastal plain,** and the hills that rise from it belong to the **Piedmont plateau** region. The mountain ranges are part of the great Appalachian system, which extends on southward, and are the watershed. Going down the western slope of the mountains, we reach another plateau and descend to the Central plain, which borders Lakes Erie and Ontario.

2. Rivers.—Many rivers flow through these states, some into the Atlantic ocean, others into

James river and Blue Ridge mountains, Va.

the Ohio river. The most important are the **Hudson, Delaware, Potomac,** and the **James.**

Several rivers that flow into the Atlantic have cut gaps in the mountains called **water gaps.** The scenery about them is very beautiful. The most remarkable are those of the Hudson at West Point, the Delaware at Delaware Water Gap, and the Potomac at Harper's Ferry.

3. Climate.—In the northern portions of these states, the climate is very much like that of New England. In winter the snow is often very deep.

As we go farther south, the climate becomes milder, and along the Atlantic coast in the southern part of Virginia snow is seldom seen.

4. Farm Products.—Farming is a more important industry in the Middle Atlantic states than in New England.

The **principal crops** are hay, potatoes, oats, wheat, corn, and buckwheat. These grow in all the states.

Maryland and Virginia are noted for tobacco.

New Jersey, Maryland, and Delaware are famed for their peaches and strawberries.

Many farmers have large peach orchards, from which they send thousands of baskets of peaches every season to New York and Philadelphia.

New Jersey is a great market garden.

As we pass through the state, we see vegetables cultivated everywhere. They are grown for the markets of New York, Philadelphia, and the neighboring cities.

The market gardens near Norfolk, Virginia, also supply the northern markets with early vegetables.

New York and Pennsylvania are especially noted for cattle, butter and cheese, hay, grain, potatoes and orchard fruits.

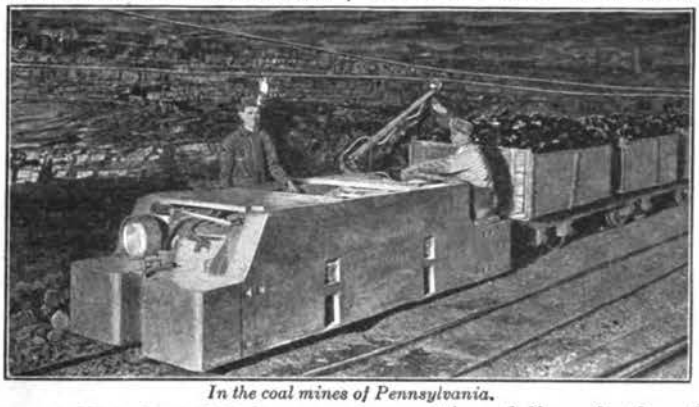
For Recitation.—What mountain ranges cross the Middle Atlantic states? What mountains are in New York? What are the most important rivers of this section? What are the principal farm products of the Middle Atlantic states? For what crop is Virginia noted? For what crops are New Jersey, Delaware, and Maryland famed? What states are noted for grazing products?

LESSON XXXIII.

1. Minerals.—The mountainous parts of these states abound in coal and iron. Pennsylvania and West Virginia are great coal and iron states.

In some of the Pennsylvania coal mines the passage-ways from which coal has been taken are miles in length.

New York furnishes from its salt beds much of our salt and most of our baking soda.



In the coal mines of Pennsylvania.

2. Iron.—As we travel through the mountains of Pennsylvania, we often see tall chimneys rising up among the tree-tops.

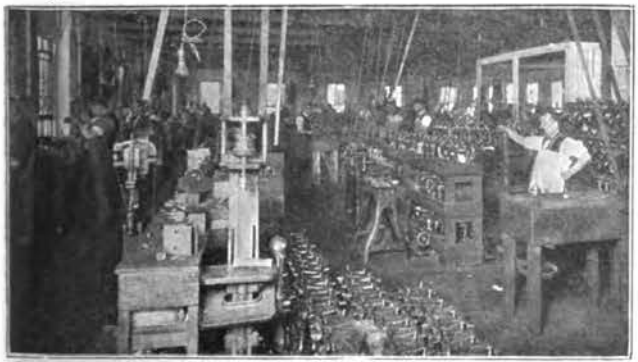
At night these chimneys are like giant lighthouses, with a flame many feet in length coming out of them.

They belong to smelting-furnaces. In such furnaces iron ore is smelted. The iron is then run off into little channels made in sand. Here it cools in bars about two feet long, and becomes what we call pig-iron. The "pigs" are melted again and made into steel, and the steel is at last rolled into rails for railroads or made into other useful things.

3. Petroleum, or rock oil, from which kerosene is made, is obtained in Pennsylvania, New York, and West Virginia.

Here are to be seen wells from which petroleum is pumped up instead of water. Sometimes, when an oil well is first opened, the oil spouts up in a column twenty-five or thirty feet high.

Pennsylvania and New York are famed for their natural gas.



Interior of a sewing-machine factory at Newark, N. J. In this room the machines are put together.

4. Manufactures.—Many of the cities and towns of the Middle Atlantic states are extensively engaged in manufacturing.

In their foundries and machine shops, railroad engines and machinery of all kinds are made. There are also manufactures of cotton, silk, and woolen goods.

Manufacturing Cities.—**New York, Philadelphia, and Baltimore** take the lead in manufacturing. **Pittsburg** is celebrated for its iron and glass works; **Buffalo,** for its enormous shipping business. **Rochester,** near the falls of the Genesee, manufactures large quantities of clothing. **Troy** makes railroad cars, stoves, and shirts, collars, and cuffs.

Newark manufactures rubber, sewing machines, and leather-goods; **Jersey City,** glassware, lead pencils, and a great variety of metal goods.

Paterson is noted for its silk manufactures. **Wilmington** is famed for its manufacture of gunpowder, cars, and iron and steel steamships.

Wheeling, W. Va., showing factories along the Ohio river.

Norfolk, in Virginia, has one of the best harbors in the United States. It manufactures cotton and ships oysters and vegetables.

Wheeling, on the Ohio, contains large iron and glass works.

For Recitation.—What are the chief products of the Middle Atlantic states? From which of these states do we get much of our coal, ironware, and petroleum? What are the leading manufacturing cities of the Middle Atlantic states? Mention other cities in this section.

LESSON XXXIV.

1. Commerce.—The commerce, both domestic and foreign, that is carried on in the Middle Atlantic states is very great.

The railways and canals are constantly carrying wheat, cotton, and other produce into the cities of New York, Philadelphia, and Baltimore. Here these products are placed in ships and steamers and sent all over the world.

2. New York is the largest city in America. It contains about five million inhabitants. Its manufactures are vast; its commerce is immense. In its harbor we may see ships from every part of the globe.

Lower New York city, photographed from the roof of the Produce Exchange. On the left is Broadway. In the center is the U. S. Sub-Treasury, a low building with columns. Three of these columns can be seen. West of it is Nassau Street. In front is Broad Street and the Mills Building. Wall Street runs east and west in front of it.

Lying in great piles on the wharves are boxes of tea, silk, and fire-crackers from Asia; coffee from South America; sugar, bananas, and pineaples from the West Indies; raisins, currants, and figs from the Mediterranean.

What has made New York such a great commercial city? First, it has a fine harbor, deep and wide. Second, it is at the mouth of the Hudson river, and this river and the Erie canal connect it with the great farming region of the country. Third, numerous railways also bring into it immense quantities of wheat and other produce.

Philadelphia, Pa.

Brooklyn, now a part of New York, is noted for the shipment of grain and for sugar refining.

Wheat is brought here in canal barges and railroad cars and placed in storehouses. It is afterwards put into ships and sent across the ocean.

3. Philadelphia is a great commercial city, and one of the leading manufacturing cities. It is on the Delaware river, and has easy access to the ocean through the Delaware bay.

4. Baltimore, on the Chesapeake bay, is the largest city of Maryland. Its manufactures are important, and it carries on a large domestic and foreign commerce.

The oysters of the Chesapeake bay are sent from Baltimore to distant parts of this country, and even to Europe.

5. Other Cities.—**Buffalo,** on Lake Erie, is a very busy place. It has an enormous trade in wheat, flour, cattle, and lumber.

Richmond, the capital of Virginia, at the falls of the James, has large iron works and an extensive tobacco trade.

Capitol grounds, Washington monument and St. Paul's church, Richmond, Va.

For Recitation.—For what are the Middle Atlantic states famed? Why has New York become a great commercial city? What is said of Philadelphia? For what is Baltimore noted? Name other important commercial cities.

THE SOUTHERN STATES.

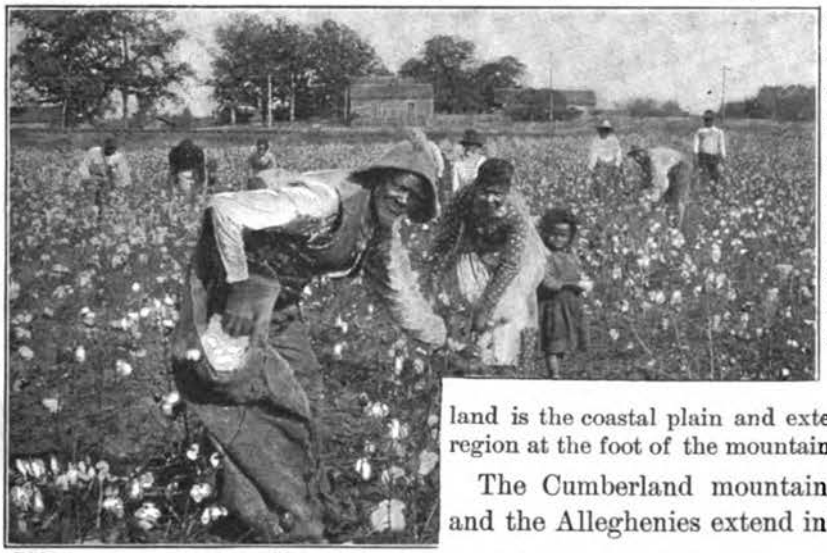
LESSON XXXV.

1. Southern States.—Leaving the Middle Atlantic states, and journeying south, we enter the Southern states.

They are North Carolina, South Carolina, Tennessee, Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, Texas, and Oklahoma.

Texas is the largest state in the Union. It is about six times the size of New York state.

2. Early Settlements.—The first attempt to form a settlement in North Carolina was made in 1585, by Sir Walter Raleigh, after whom the capital is named.



Picking cotton near Anniston, Ala. The frost has killed the leaves.

The first permanent settlement in South Carolina was made by English people in 1670. Georgia was colonized by English settlers, who founded **Savannah** in 1733.

Florida was settled by Spaniards, and purchased from Spain by the United States. **Saint Augustine,** in Florida, is the oldest town in the United States. It was founded in 1565.

Louisiana is so called from the French king, Louis XIV. With Arkansas and a large tract lying to the north and northwest, it was bought by the United States from France.

Texas was once a part of Mexico. We are reminded of this by the number of Spanish names in the state—San Antonio, Rio Grande, etc. San means *saint;* Rio, *river;* Grande, *great.* After a hard fight Texas gained its independence. It was a republic from 1836 to 1845, when it was made one of the United States.

For Recitation.—Name the Southern states, with their capitals. Who first settled North Carolina? Who settled South Carolina? Who colonized Georgia? Who settled Florida? Which of the Southern states was settled by the French? To what country did Texas once belong?

LESSON XXXVI.

1. Surface.—The land of the Southern states is mostly level. Along the coast it is low. In some parts of Mississippi and Louisiana it is below the surface of the Mississippi. The country would be flooded but for the great banks, or **levees,** built on both sides of the river.

The nearly level land is the coastal plain and extends to the Piedmont region at the foot of the mountains.

The Cumberland mountains, the Blue Ridge, and the Alleghenies extend into this section.

Mt. Mitchell, in North Carolina, is the highest mountain east of the Mississippi.

2. Swamps.—If we should travel along the shores of the Southern states, we should often find ourselves in the midst of swampy lands, where the vegetation is most luxuriant and beautiful.

Mosses hang from the trees. The magnolia, the jessamine and many gay-colored flowers fill the air with fragrance.

3. Climate.—The Southern states have a warm climate. In those which lie south of Tennessee the winters are scarcely colder than early autumn in the Middle Atlantic states. In Florida the orange tree blossoms all the year around. Florida means *flowery.*

MAP STUDIES.

The Southern states, with their Capitals and Chief Cities.

States.	*Capitals.*	*Chief Cities.*
North Carolina,	Raleigh (*raw'-le*),	Charlotte.
South Carolina,	Columbia,	Charleston.
Georgia,	Atlanta,	Atlanta.
Florida,	Tallahassee,	Jacksonville.
Alabama,	Montgomery,	Birmingham.
Mississippi,	Jackson,	Meridian.
Louisiana,	Baton Rouge(*bat'-on roozh*),	New Orleans.
Texas,	Austin,	San Antonio.
Arkansas,	Little Rock,	Little Rock.
Tennessee,	Nashville,	Memphis.
Oklahoma,	Oklahoma City,	Oklahoma City.

Which four of the Southern states border on the Atlantic? Which border on the Gulf? *These last are often called the Gulf States.* Which state is farthest east? Farthest west? Which two states extend farthest south, and have therefore the warmest climate? Which Southern state is the largest? The smallest?

What three capes on the coast of North Carolina? *The coast near Cape Hatteras is very dangerous.*

What two sounds are nearly enclosed by the coast? *Albemarle Sound is famed for its herring fisheries.*

What mountains cross the state? *Mount Mitchell is the highest peak east of the Mississippi.* Find it on the map. What large city just north of Cape Fear?

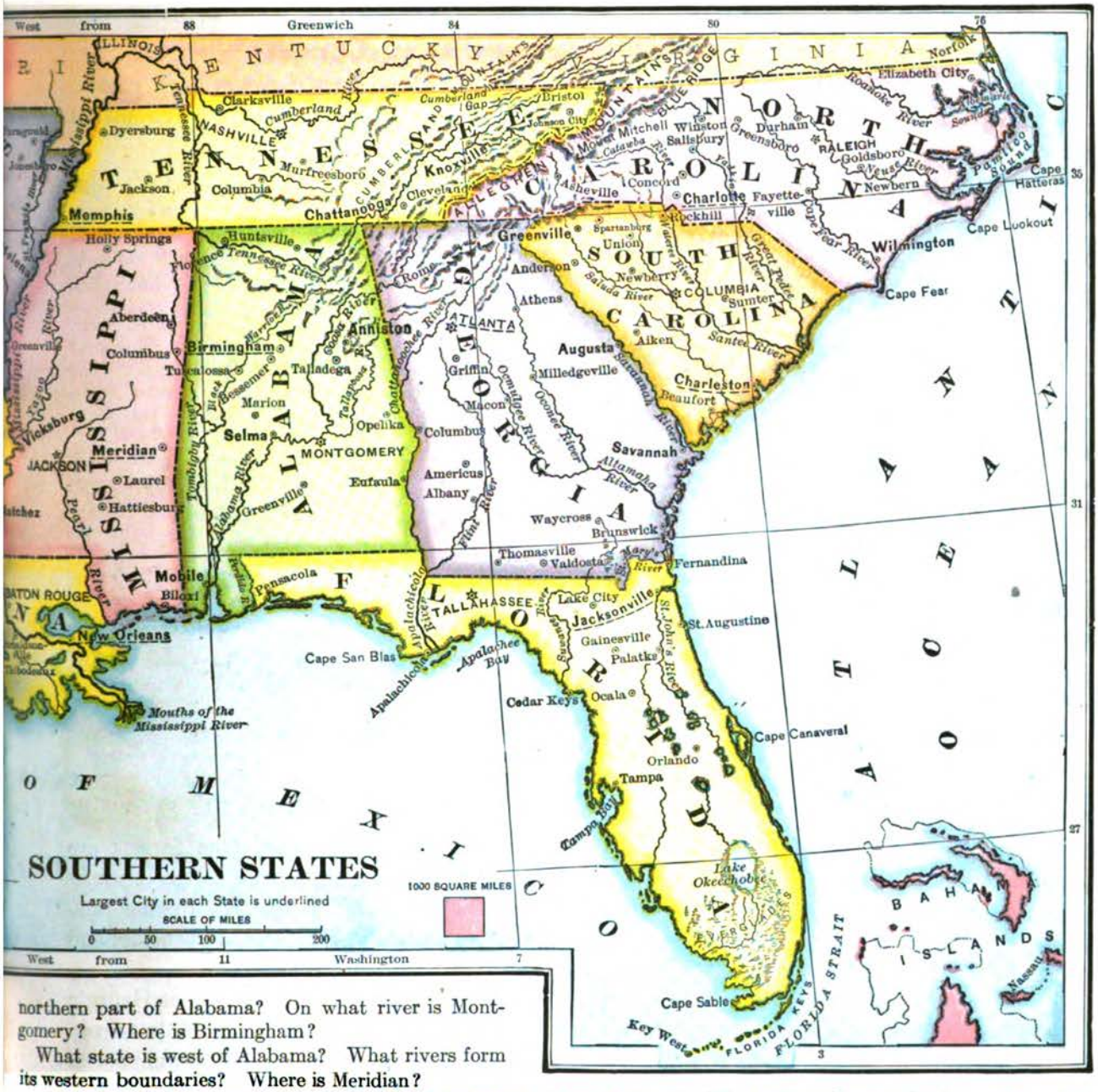
What is the chief seaport of South Carolina? Name the principal rivers. If you cross the Savannah river from South Carolina, what state do you enter?

Which is the mountainous part of Georgia? In what part of the state is Atlanta? What is the chief seaport? On what river?

What state is south of Georgia? For what fruit is Florida famed? In what direction do most of the rivers of this and the other Gulf states flow?

What state lies west of Georgia? What two rivers of Alabama unite, and flow into Mobile bay?

What city is on this bay? What river crosses the



northern part of Alabama? On what river is Montgomery? Where is Birmingham?

What state is west of Alabama? What rivers form its western boundaries? Where is Meridian?

What two rivers separate Louisiana from Mississippi? In sailing up the Mississippi, what large city would you reach about 100 miles from the mouth of the river? Where is Shreveport?

Crossing the Sabine river from Louisiana, what state do you enter? What river separates Texas from Mexico? What is the chief seaport?

Name the two longest rivers wholly within Texas. On which one is the capital?

What state is north of Texas? What river separates it from Texas? What boundaries of Texas are formed by New Mexico? What states are east of Oklahoma?

What river forms the eastern boundary of Arkansas? What large river crosses the state?

On what rivers might you sail from Chattanooga to New Orleans? What mountains are in the eastern part of Tennessee?

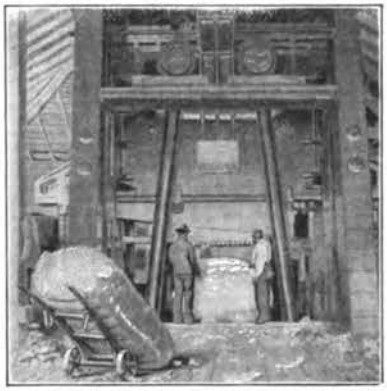
Name the two principal rivers of Tennessee. What large cotton-port is in the southwest corner of the state?

Review.—Let the Southern states be reviewed in the same manner as the New England states. See page 44.

Map-Drawing.—The state of Tennessee will be found an easy one to draw. Let the pupils copy it on their slates, and show the Cumberland mountains and the Tennessee river. Let them write in the proper places the names of the eight different states that bound Tennessee.

4. Agriculture.—The chief employment of the people is agriculture. The land is generally divided up into large plantations.

Corn, wheat, tobacco, and many other crops are raised. Tobacco is produced extensively in North Carolina and Tennessee. But the Southern states are especially noted for their cotton, sugar, rice, fruits, and early vegetables.



A cotton compress in Mississippi. The loose cotton is pressed into bales. These are then covered with bagging and bound with iron bands. A finished bale rests on the truck.

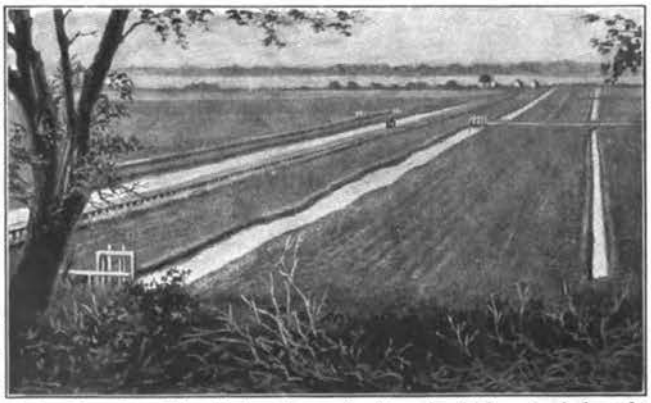
5. Cotton is the most valuable of all the products. It grows on a plant. The seeds are inclosed in pods called bolls. Each seed is wrapped in the soft, downy substance that we call cotton. As the seeds ripen, the bolls burst open, and the fields are white with snowy cotton.

The seeds are separated from the cotton by a machine called the cotton gin, and the cotton is then packed in great bales and sent to market.

From cotton seed is pressed an oil that is as pure as olive oil. A hard cake is left, which is ground into cotton-seed meal and used as a fertilizer or as feed for cattle.

6. Rice is raised chiefly in Louisiana, Texas, Arkansas, and South Carolina.

It grows both on prairie and lowland. The grain is very hard, and when first sown it needs to lie under water; so the rice grower floods his fields. Afterwards the water is drained off and the ground kept dry. Rice when growing looks something like wheat.



A Carolina rice field. Notice the canals, through which water is brought in; and the gates, which are raised or lowered at will.

7. Sugar-cane.—Traveling in Louisiana, we see great fields covered with what we might suppose to be giant corn plants. These fields are sugar plantations. The plants are sugar-cane.

At the proper season it is cut down, carried to a mill, and crushed between iron rollers. The sweet juice is thus squeezed out. It is boiled a long time, until at last the solid sugar forms. Most of the cane-sugar made in the main body of the United States comes from Louisiana.

For Recitation.—Describe the surface of the Southern states. What kind of climate have the Southern states? What is the chief occupation of the Southern states? For what products are the Southern states noted? What is the most valuable crop of these states? Where does the South send its cotton?

Atlanta, Ga.—The tall buildings are in the business part of the town.

LESSON XXXVII.

1. Pine Forests.—Immense pine forests are found in these states, from the Texas prairies to the Dismal swamp in Virginia. Besides lumber, great quantities of tar, pitch, turpentine, and rosin are obtained from them.

The largest supplies are gathered in Georgia and North Carolina. **Savannah** and **Wilmington** are noted for the export of these products.

Where the pine forests have been cut away, we see truck farms upon which fruits and vegetables are grown and shipped to the North. Strawberries, tomatoes, beans, and peas grow here while Northern gardens are still covered with snow.

2. Stock-raising is an important occupation in Texas. On its grassy prairies immense herds of cattle and sheep find pasturage all the year; and the winters are so mild that no shelter is needed. Oklahoma also has fine herds of cattle.

The cattle are sent to the markets of the Eastern states, and are even shipped to Europe. The great stock farms are called **ranches.**

Gathering strawberries on the Coastal plain in North Carolina.

3. Oranges.—Florida is too hot for apples to thrive, and so, instead of apple orchards, we see here groves of orange trees.

The raising of oranges and other fruits is one of the important industries of this state.

4. Minerals.—Iron is mined in Alabama, North Carolina, Tennessee, and Georgia; coal in Alabama; salt and sulphur in Louisiana; phosphate in Florida and South Carolina; coal and petroleum in Texas and Oklahoma, and some gold in Georgia and the Carolinas. Marble is quarried in Georgia and Tennessee.

Forty-seven teams of mules plowing on a cotton plantation in Mississippi.

5. The Manufactures of the Southern states are many and valuable. There are many furnaces,

Herding cattle on the plains of Texas.

foundries, sawmills, and cotton and woolen mills. In leading cities are cotton-seed-oil mills and ice factories—the latter supply most of the ice used in these states. **Memphis** manufactures cotton-seed oil and lumber; **Nashville,** flour and lumber; **Atlanta,** cotton goods, and foundry and machine shop products; **Birmingham,** iron and steel; **Chattanooga,** iron goods and lumber; **Dallas,** saddles and harness; **Augusta,** cotton goods; **Houston,** cottonseed oil.

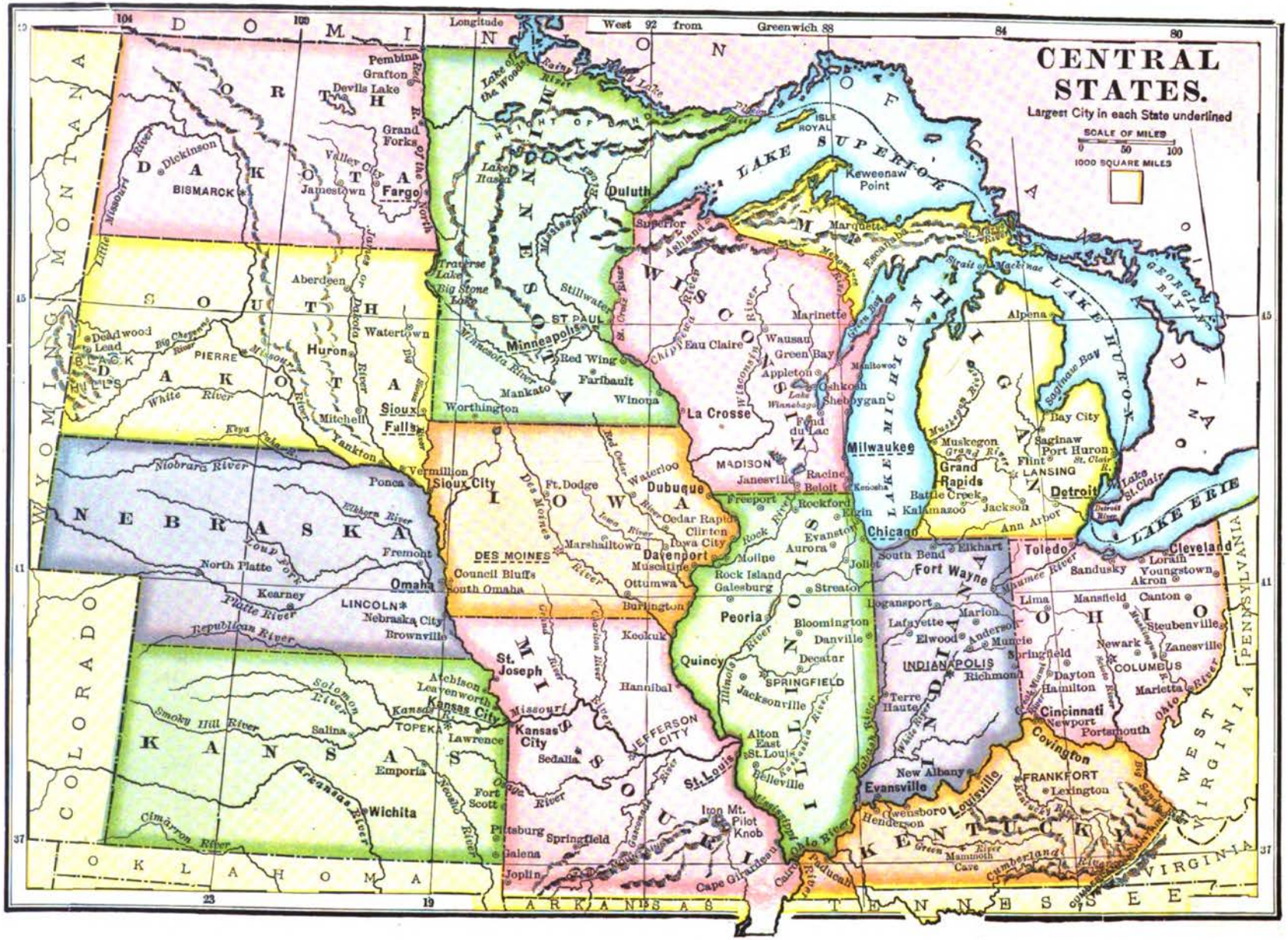
6. New Orleans, on the Mississippi, is one of the greatest cotton ports, and sugar markets in the world. It is the largest city in the South,

Steamships being loaded with cotton at the wharves of Galveston, Texas.

and is also the first city in manufacturing and commerce.

Galveston is now the largest exporting city in the South. **Savannah, Charleston,** and **Mobile** ship cotton and lumber. **San Antonio** and **Little Rock** are important inland cities.

For Recitation.—What is obtained from the pine forests of the South? What part of the South is famed for stock-raising? For what is Florida celebrated? Which of the Southern states are noted for manufactures? What are the great cotton markets?


CENTRAL STATES.
Largest City in each State underlined
SCALE OF MILES
0 50 100
1000 SQUARE MILES
Longitude West from Greenwich
104
100
96
92
88
84
80
45
41
37
MONTANA
WYOMING
COLORADO
NEBRASKA
KANSAS
OKLAHOMA
NORTH DAKOTA
SOUTH DAKOTA
MINNESOTA
IOWA
MISSOURI
ARKANSAS
LOUISIANA
WISCONSIN
ILLINOIS
MICHIGAN
INDIANA
OHIO
KENTUCKY
TENNESSEE
WEST VIRGINIA
VIRGINIA
PENNSYLVANIA
LAKE SUPERIOR
LAKE MICHIGAN
LAKE HURON
LAKE ERIE
Pembina
Grafton
Devils Lake
Grand Forks
Dickinson
BISMARCK
Jamestown
Fargo
Valley City
Aberdeen
Watertown
Huron
Deadwood
Lead
BLACK HILLS
PIERRE
Sioux Falls
Mitchell
Yankton
Vermillion
Sioux City
Ponca
Fremont
North Platte
Kearney
Omaha
LINCOLN
Nebraska City
Brownville
Republican River
Atchison
Leavenworth
Kansas City
TOPEKA
Lawrence
Salina
Smoky Hill River
Emporia
Wichita
Arkansas River
Cimarron River
Fort Scott
Pittsburg
Springfield
Galena
Joplin
Duluth
Superior
Ashland
Keweenaw Point
ISLE ROYALE
Marquette
Lake of the Woods
Rainy River
Lake Itasca
Traverse
Big Stone Lake
Stillwater
ST PAUL
Minneapolis
Red Wing
Faribault
Mankato
Winona
Worthington
La Crosse
Eau Claire
Wausau
Green Bay
Appleton
Oshkosh
Sheboygan
Fond du Lac
Marinette
Menominee
Escanaba
Alpena
Straits of Mackinac
Manitowoc
Saginaw Bay
Bay City
Saginaw
Port Huron
Flint
LANSING
Grand Rapids
Muskegon
Battle Creek
Kalamazoo
Jackson
Ann Arbor
Detroit
Milwaukee
Racine
Kenosha
Beloit
MADISON
Janesville
Rockford
Freeport
Elgin
Chicago
Evanston
Aurora
Joliet
Waterloo
Dubuque
Cedar Rapids
Clinton
Iowa City
Davenport
Muscatine
Ottumwa
Burlington
DES MOINES
Council Bluffs
South Omaha
Marshalltown
Ft. Dodge
Des Moines
Keokuk
Hannibal
St. Joseph
Quincy
Peoria
Rock Island
Galesburg
Streator
Moline
Bloomington
Danville
Decatur
SPRINGFIELD
Jacksonville
Kansas City
Sedalia
JEFFERSON CITY
St. Louis
Alton
East St. Louis
Belleville
Iron Mt.
Pilot Knob
Cape Girardeau
Cairo
Elkhart
South Bend
Fort Wayne
Logansport
Lafayette
Elwood
Anderson
Marion
Muncie
Springfield
INDIANAPOLIS
Richmond
Terre Haute
Toledo
Sandusky
Lorain
Youngstown
Akron
Cleveland
Mansfield
Canton
Steubenville
Newark
Zanesville
COLUMBUS
Dayton
Hamilton
Marietta
Cincinnati
Newport
Portsmouth
Covington
FRANKFORT
Lexington
Louisville
New Albany
Evansville
Owensboro
Henderson
Mammoth Cave
Paducah
Green River
Cumberland River
Ohio River
Tennessee River
Big Sandy River
Kanawha River
Monongahela River
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Wabash River
White River
Illinois River
Missouri River
Mississippi River
Red River of the North
Little Missouri River
James or Dakota River
Big Sioux River
Niobrara River
Elkhorn River
Loup Fork
Platte River
Republican River
Solomon River
Smoky Hill River
Arkansas River
Cimarron River
Neosho River
Osage River
Gasconade River
Chippewa River
St. Croix River
Wisconsin River
Fox River
Menominee River
Escanaba River
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Manistee River
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Grand River
Saginaw Bay
Detroit River
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Maumee River
Sandusky River
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Kanawha River
Big Sandy River
Licking River
Kentucky River
Green River
Mammoth Cave
Cumberland River
Tennessee River
Ohio River
Wabash River
White River
Illinois River
Kaskaskia River
Embarras River
Little Wabash River
Cache River
Big Muddy River
Saline River
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Forked Deer River
Big Black River
Yazoo River
Tallahatchie River
Coldwater River
Yalobusha River
Sunflower River
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Bayou Pierre
Homochitto River
Pearl River
Leaf River
Chickasawhay River
Tombigbee River
Black Warrior River
Alabama River
Coosa River
Tallapoosa River
Chattahoochee River
Flint River
Apalachicola River
Escambia River
Yellow River
Choctawhatchee River
Perdido River
Pascagoula River
Mobile Bay
Mobile
Pensacola
Apalachicola
Tallahassee
Jacksonville
Savannah
Brunswick
Charleston
Wilmington
Cape Fear River
Pee Dee River
Santee River
Edisto River
Savannah River
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Ocklawaha River
Kissimmee River
Lake Okeechobee
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Peace River
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Cuba
Yucatan
Mexico
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Louisiana
Mississippi
Alabama
Georgia
South Carolina
North Carolina
Virginia
West Virginia
Tennessee
Kentucky
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Iowa
Minnesota
Wisconsin
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Nebraska
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Colorado
Wyoming
Montana
North Dakota
South Dakota
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Atlantic Ocean
Arctic Ocean
Indian Ocean
Caribbean Sea
Gulf of Mexico
Gulf of California
Gulf of Alaska
Bering Sea
Bering Strait
Aleutian Islands
Hawaiian Islands
Alaska
Panama Canal
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Cape Horn
Strait of Magellan
Drake Passage
Antarctica
Antarctic Circle
Arctic Circle
Tropic of Cancer
Tropic of Capricorn
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Prime Meridian
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Central Time Zone
Mountain Time Zone
Pacific Time Zone
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Hawaii Time Zone
Atlantic Time Zone
Newfoundland Time Zone
Greenwich Mean Time
Coordinated Universal Time
Daylight Saving Time
Standard Time
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MAP STUDIES.

The Central states: Capitals and Chief Cities.

States.	*Capitals.*	*Chief Cities.*
Ohio,	Columbus,	Cleveland.
Kentucky,	Frankfort,	Louisville.
Indiana,	Indianapolis,	Indianapolis.
Illinois,	Springfield,	Chicago.
Michigan,	Lansing,	Detroit.
Wisconsin,	Madison,	Milwaukee.
Minnesota,	St. Paul,	Minneapolis.
Iowa,	Des Moines (*day-moin*),	Des Moines.
Missouri,	Jefferson City,	St. Louis.
Kansas,	Topeka,	Kansas City.
Nebraska,	Lincoln,	Omaha.
North Dakota,	Bismarck,	Fargo.
South Dakota,	Pierre,	Sioux Falls.

In what direction are the Central states from the Southern? From the Middle Atlantic?

If you do not live in the Central states, point toward them. Would you cross either the Alleghenies or the Rocky mountains in going to them?

Which of the Great Lakes is wholly within the United States? Which four states border on Lake Michigan? Which three border on Lake Superior?

Which states are bordered by the Mississippi on the east? Which on the west?

What three states have the Ohio for their southern boundary? What states does the Missouri river separate?

What state lies south of the Ohio river? What mountains form part of the eastern boundary of Kentucky?

On what river is the capital? What is the largest city? On what river? What state is separated from Kentucky by the Mississippi?

What great river crosses Missouri? What great city is just below the mouth of the Missouri?

On what river is Jefferson City? At the junction of what two rivers is Kansas City?

What mountains are in the southern part of the state? Where is Iron mountain? Pilot Knob?

What state is west of Missouri? On what river is the capital of Kansas? Name the largest city. On what river is it?

What state is north of Kansas? What river forms the eastern boundary of Nebraska? What river crosses the state? What is the largest city?

Suppose you cross the Missouri eastward at Omaha, what state will you be in? What river borders Iowa on the west? On the east?

On what river is Des Moines, the largest city? On what river is Dubuque (*du-buke'*)?

What river forms the western boundary of Illinois? What and where is the largest city? On what river is Peoria?

What state is partly separated from Illinois by the Wabash?

Where is Evansville? Fort Wayne? What state lies to the east of Indiana?

What is the largest city of Ohio? On what river is it? Where is Cleveland? What state consists of two peninsulas?

Which four of the Great Lakes border on Michigan? Which two lakes are connected by the St. Mary's river?

Which two by the Strait of Mackinac? Name the largest city. On what river is it?

What state lies between Lake Michigan and the Mississippi? What lake-port is the largest city in Wisconsin?

What great river rises in Minnesota? In what lake does it rise? What river forms part of the western boundary? In what direction does it flow?

What is the largest city? Near the junction of what rivers is it?

What two states lie west of Minnesota? What great river crosses them? Name the largest cities. Where are the Black hills? What town is among them?

Routes.—On what lakes would you sail in going by water from Chicago to Cleveland? From Detroit to Duluth? How would you go on a steamboat from St. Paul to Cincinnati?

Map Drawing.—Let the pupil draw on his slate the outline of Kansas, insert the Kansas river, and locate the capital and Leavenworth. Let him write in their proper places the names of the states that bound Kansas.

Review may be conducted as directed heretofore.

THE CENTRAL STATES.

LESSON XXXVIII.

1. Central States.—To the north of the Southern states lie those that are called the **Central states.** If we look at the map of the United States, we shall see that they occupy the north central part.

They are Ohio, Kentucky, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Nebraska, North Dakota, and South Dakota.

2. Settlement.—About 100 years ago only a very few of the many hundred towns now in the Central states had been founded. The prairies were covered with long waving grass that no one cut, and beautiful flowers that no one gathered.

The prairies were the grazing fields of millions of buffaloes and wild deer, and were the hunting grounds of the Indians.

As the Atlantic states became more thickly settled, people crossed the Allegheny mountains in search of better and cheaper lands for farming.

Often a whole family packed in a wagon everything that they had, and traveled on and on through the pathless forests and over the grass-covered prairies, sleeping in the wagon at night, and continuing their journey the next morning, until they reached a spot that seemed a suitable one for their new home. Other settlers joined them, and more and more were added, until the little settlement grew into a town; and in very few years some of the towns, like Chicago, St. Louis, and Cincinnati, became large and prosperous cities.

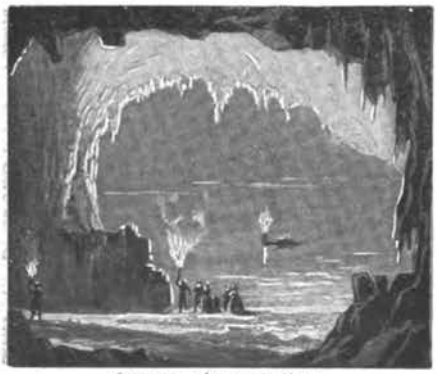
For Recitation. — Why are the Central states so called? What was the condition of these states 100 years ago? What is the condition of these states to-day?

LESSON XXXIX.

1. Surface.—The Central states are generally level. A large portion of them consists of treeless prairies, covered with a deep, rich soil. (Describe a prairie.)

Cutting a field of hemp in Kentucky.

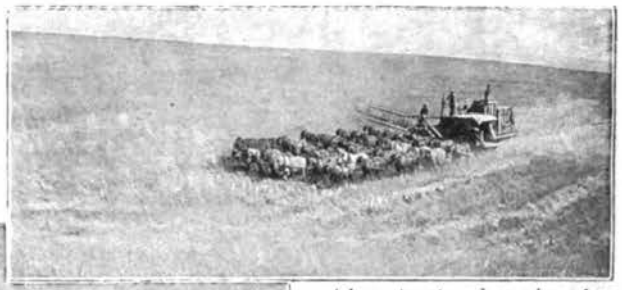
The only mountains in these states are in Eastern Kentucky, Southern Missouri, and South Dakota.



A lake in Mammoth Cave.

2. The mammoth cave in Kentucky is the largest cavern in the world. It has been explored to a distance of ten miles. Beautiful shapes of limestone, that glisten like diamonds when the torchlight of the visitor rests upon them, hang down from the roof. It is like a little fairy world. In the cave are three rivers and a fresh-water lake, the home of fish that have no eyes.

A field of beets in Michigan ready to be made into sugar.



A harvester at work on a large farm in the wheat belt. This machine cuts the wheat, threshes it, cleans the grain, and puts it into bags.

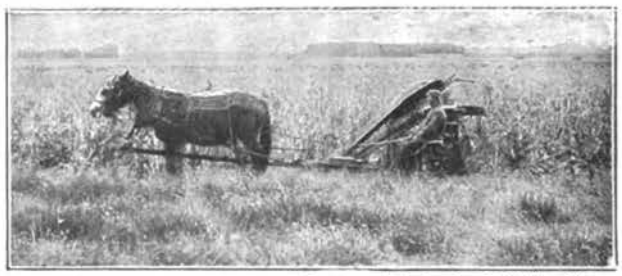
3. Agricultural Products. — The prairie lands are the great agricultural region of the United States. Enormous crops of wheat, corn, oats, flax, and tobacco are raised.

Hemp is grown very largely in Kentucky. The fibers of this plant are made into rope.

The sugar-beet, from which large quantities of sugar are made, is becoming an important crop, especially in Michigan, Wisconsin, and Nebraska.

The grapes and wines of Ohio and Missouri are celebrated.

4. Wheat.—The northern part of the Central states is one of the greatest wheat-growing regions in the world. It supplies almost the whole of the United States with wheat, and sends large quantities also to the countries of Europe. Much wheat is made into flour and exported.



Courtesy of the Sanders Publishing Co.

Harvesting corn on a large farm in Nebraska. Corn is planted, cultivated, and harvested entirely by machinery.

A tobacco plant.

5. Corn is raised in even greater quantity than wheat. The region in which corn grows best is sometimes called the **corn belt.** It extends across the middle portion of the Central states. Here for miles and miles the fields are planted with corn.

6. Tobacco is one of the important crops. Kentucky raises more than any other state.

When white men came over to the New World, they saw the Indians smoking tobacco, and learned this habit from them. Sir Walter Raleigh made it fashionable in England.

7. Stock-raising is an important industry. Many cattle are raised and many are brought in from the West. Fresh beef is sent in refrigerator cars to the East and in refrigerator ships to Europe.

From photo by Sanders Publishing Co.
Poland-China hogs on a farm in Iowa.

From photo by Prof. H. Garman.
A stock farm in Kentucky, where the finest breeds of horses are raised.

Many horses and mules are raised in these states. The thoroughbred horses of Kentucky are famous all over the world.

8. Pork-packing. —Millions of hogs are killed in these states. Much of the pork is salted. Bacon and hams, as well as salt pork are sent to various parts of the Union and are also exported to other countries.

Lard and lard-oil are made from the fat. The bristles are used in making brushes.

Chicago, Cincinnati, Kansas City (Kansas), and **South Omaha** are noted for pork-packing.

9. The Minerals of the Central states are very valuable. The copper and iron mines of Michigan are very rich. The iron mines of Minnesota are among the richest in the world. Missouri, Kansas, and Wisconsin abound in lead and zinc.

Home of a wealthy ranch owner in Dakota.

Ohio, Illinois, Indiana, Kentucky, Kansas, Iowa, and Missouri have coal-beds. South Dakota has mines of gold and silver; Ohio, Indiana, and Kansas, wells of oil and natural gas. Michigan and Kansas are famous for their salt.

For Recitation.—Describe the surface of the Central states. What is the leading occupation of the Central states? What are the great crops of the Central states? What animals are largely raised in the Central states? What are the chief mineral products?

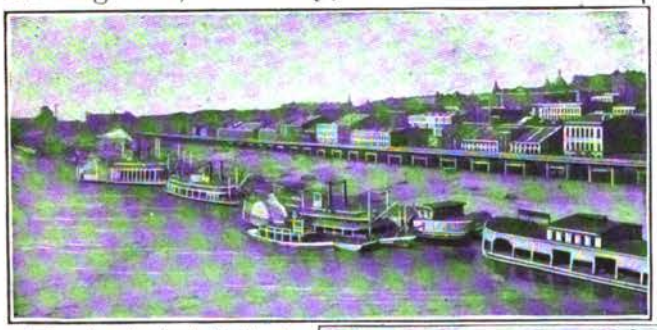
A lump of pure copper from Rockland, Mich., cut from a mass weighing 36 tons.

LESSON XL.

1. The manufactures of the Central states are important. Large sawmills are busily employed in the great forests of Minnesota, Wisconsin, and Michigan. Those of Minneapolis, at the Falls of St. Anthony, are the largest.

The flour mills grind immense quantities of wheat. Minneapolis produces more flour than any other city in the world. Milwaukee and St. Louis are also famous for their flouring mills.

Other important manufactures are those of farming tools, machinery, and furniture.



The river front at St. Louis. Compare the river boats with the lake boats at the wharf in Chicago. Notice the wharf boat, where the steamers land instead of at a wharf.

2. Commerce.—The commerce of the Central states consists chiefly in sending away their own great products, especially wheat, corn, and meat, and in bringing in articles that they need.

The harbor at Chicago near the mouth of the Chicago river. This river has been widened and deepened and connected with the Illinois river by a canal so that boats may go from the Great Lakes to the Mississippi.

The Mississippi and Ohio rivers can be used by eight of the Central states to float produce to market. Railways connect all the cities and towns with other parts of the country.

3. The Great Lakes have thousands of steamboats and other vessels plying upon them, and carrying cargoes from place to place. These lakes are all connected by rivers and canals; and vessels loaded at Duluth, Chicago, or any lake port, and sailing into the St. Lawrence, may enter the Atlantic and go directly from the heart of the United States over to Europe.

You may wonder how these vessels manage to avoid the Falls of Niagara and the falls of St. Mary's river. Ship-canals have been constructed around these falls.

4. Chicago is the second city in population in the country. About eighty years ago it was only a small village. It now contains more than two million people. It has an immense trade in grain, pork, lard, beef, lumber, and cattle.

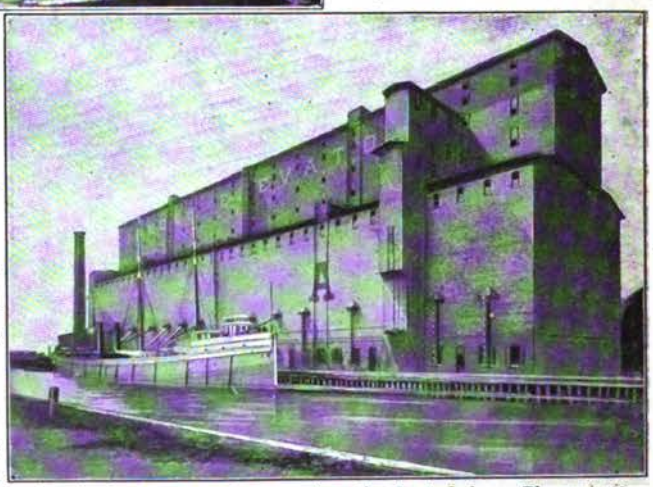
Night and day railway trains and steamboats are carrying goods to Chicago, or taking them away from this city to other places. It is, therefore, what we call a great center of trade.

5. St. Louis is the largest city on the Mississippi. It is connected with all the Central states either by navigable rivers or by numerous railroads. Like Chicago, it also is a great center of trade. It manufactures more tobacco than any other city in the world.

6. Cincinnati is the largest city on the Ohio. It is noted for its large trade and manufactures.

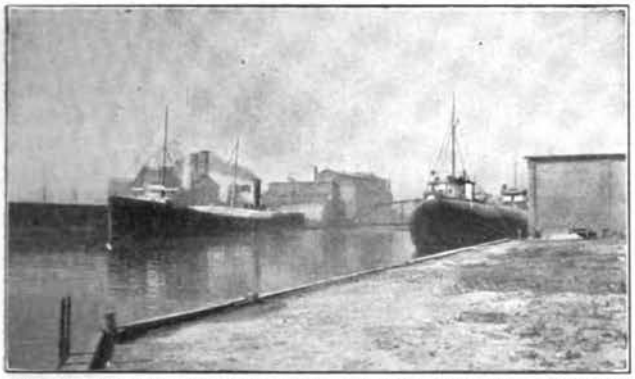
Louisville is a busy and beautiful city on the Ohio. It is our greatest tobacco market and has an extensive trade.

7. On the Great Lakes there are large cities besides Chicago, all extensively engaged in lake commerce. **Cleveland** is noted for its great iron works and its beautiful avenues. **Detroit** was once a French trading



A grain elevator commonly seen along the Great Lakes. The grain is lifted from boats and cars by an endless belt with buckets attached, and stored until ready for shipment.

port, but it is now a fine city, and its manufactures are varied and extensive. **Milwaukee** is a great grain market, and so is **Toledo. Duluth**



The city of Milwaukee, at the mouth of the Milwaukee river.—Notice the "whale-back" steamer on the right, the lake steamer and the grain elevator and brewery in the background.

and **Superior** ship grain, and are the ports of rich copper and iron districts.

On the Mississippi are **Minneapolis** and **St. Paul** in the center of the wheat and lumber districts. Minneapolis is the largest flour and lumber market in the country. These two cities are built near the Falls of St. Anthony. These falls furnish water power for mills.

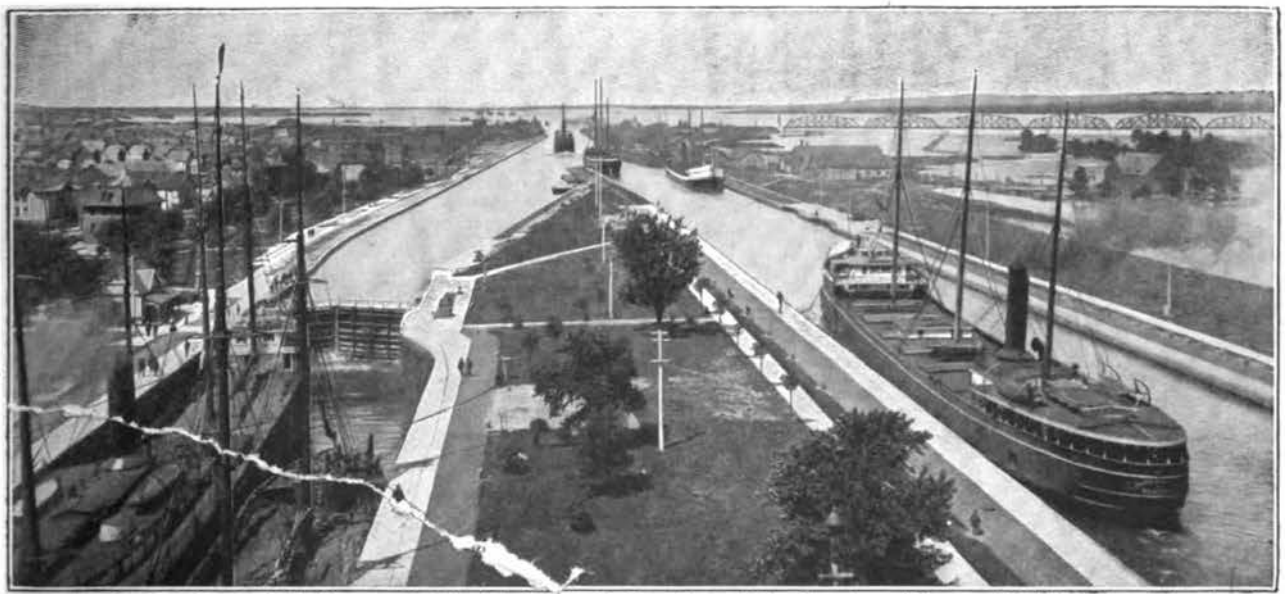
Near the Western Border, convenient to the cattle ranches, and in the center of the farming district, are **Kansas City,** which is largely engaged in shipping beef and pork, and **Omaha,** which is also engaged in this business.

In the Interior of these states there are many fine cities surrounded by a rich country and extensively engaged in manufacture. **Columbus, In-**

Cadillac Square and public buildings in the city of Detroit.

dianapolis, Peoria, Topeka, Des Moines, Grand Rapids, Dayton, and **St. Joseph** are among these cities.

For Recitation.—What are the principal articles manufactured in the Central states? Describe the commerce of the Central states. How are the products of these states sent to other parts of the country? What is said of Chicago? What is said of St. Louis? What great cities are on the Ohio? Name the great lake-ports. Name other important cities. In what state is each of these cities found?



The "Soo" canal, through which ships pass the falls of the St. Mary's river, between Lakes Superior and Huron. Find the lock and the gate. See the falls of the river under the railroad bridge. The falls are called the Sault (Soo) Sainte Marie, a French name for the leap or waterfall of St. Mary's. The canal and the city take the name of the falls.

MAP STUDIES.

The Rocky mountain and Pacific States: Capitals and Chief Cities.

States.	*Capitals.*	*Chief Cities.*
Colorado,	Denver,	Denver.
Wyoming,	Cheyenne (*shi-en'*),	Cheyenne.
Montana,	Helena,	Butte.
Idaho,	Boisé (*boi-zay'*),	Boisé.
Washington,	Olympia,	Seattle.
Oregon,	Salem,	Portland.
California,	Sacramento,	San Francisco.
Nevada,	Carson City,	Reno.
Utah,	Salt Lake City,	Salt Lake City.
New Mexico,	Sante Fé,	Albuquerque.
Arizona,	Phœnix,	Tucson.
Territory.	*Capital.*	*Chief City.*
Alaska,	Juneau,	Nome.

What country borders this section on the north? On the south? What ocean is west of it? What states border it on the east?

What states border on the Pacific ocean? What states are crossed by the Rocky mountains?

What river forms part of the eastern boundary of California? What two mountain ranges are in this state? Can you find Point Conception? Name the largest city in California. Where is it? On what river is the capital? Where is Oakland? Los Angeles?

Salt Lake City.—The large building in the background with four towers is the Mormon temple.

What state is north of California? What river forms part of the eastern boundary of Oregon?

What river forms part of its northern boundary? *The Columbia river is famed for its fisheries.* On what river is the capital? Name the largest city. Where is it?

What state is north of Oregon? What river crosses Washington and forms part of the southern boundary?

What sound penetrates Washington? Where is the capital? What and where is the largest town?

What island is northwest of Washington? *This island is a part of the Dominion of Canada.*

Where is Alaska territory? What is its capital? What river flows through it?

What state lies east of Washington and Oregon? What state lies east of California?

Name the largest city of Nevada. In what part of the state is it? *Virginia city is famed for its silver mine, 3,000 feet deep.*

Name the capital of Utah. What is its largest lake? What mountains are in Utah?

What state is south of Utah? What river crosses northwestern Arizona? *The Colorado is noted for its canyons. Some are more than a mile deep.*

What state is east of Arizona? What two rivers cross New Mexico? Name the largest city in New Mexico. *Santa Fé is more than a mile above the level of the sea.*

What state is north of New Mexico? What four great rivers rise in Colorado?

Pike's peak is nearly three miles high, and is crowned with perpetual snow. A government weather station is on the top. The view is one of the grandest in the country.

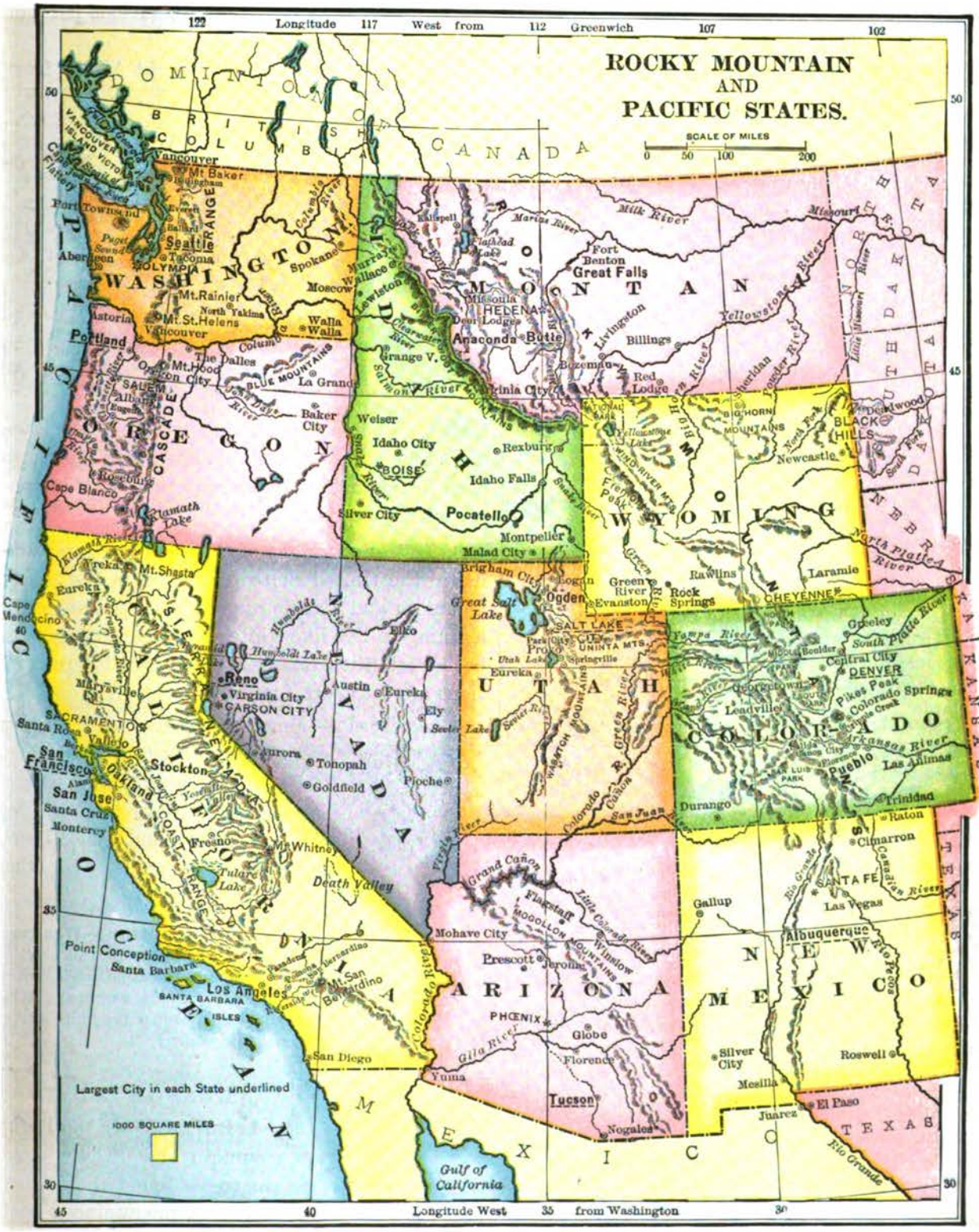
Leadville is noted for its mines of silver. It is more than two miles above the sea, and is the most elevated town in the United States.

What state is north of Colorado? In what part of Wyoming is Cheyenne (*shi-en'*)? What great park is in Wyoming?

What mountains form part of the western boundary of Montana? What two large rivers run eastward through Montana? Name the largest city.

Find Fort Benton. *From it you can travel on a steamboat down the Missouri and the Mississippi to the Gulf of Mexico. The voyage would be about 4,000 miles long.* Describe a voyage by water from Spokane to Sacramento.

On the narrow coast plain of California. The city is Santa Barbara, situated on the coast northwest of Los Angeles.


ROCKY MOUNTAIN
AND
PACIFIC STATES.
SCALE OF MILES
0 50 100 200
Longitude West from Greenwich
122 117 112 107 102
50 45 40 35 30
DOMINION OF CANADA
BRITISH COLUMBIA
WASHINGTON
OREGON
CALIFORNIA
IDAHO
NEVADA
MONTANA
WYOMING
UTAH
COLORADO
ARIZONA
NEW MEXICO
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
KANSAS
TEXAS
Pacific Ocean
Gulf of California
Vancouver
Mt Baker
Seattle
Tacoma
OLYMPIA
Spokane
Moscow
Lewiston
Walla Walla
Portland
Astoria
Mt.Rainier
Mt.St.Helens
Mt.Hood
The Dalles
La Grande
Baker City
SALEM
Albany
Eugene
Roseburg
Cape Blanco
Klamath Lake
Weiser
Idaho City
BOISE
Silver City
Rexburg
Idaho Falls
Pocatello
Montpelier
Malad City
Kalispell
Flathead Lake
Missoula
HELENA
Deer Lodge
Anaconda
Butte
Fort Benton
Great Falls
Milk River
Missouri
Marias River
Livingston
Billings
Bozeman
Yellowstone River
Red Lodge
Grange V.
Virginia City
Salmon River Mts
Big Horn Mts
Yellowstone Lake
Yellowstone Park
Big Horn Mountains
Sheridan
Buffalo
Newcastle
Deadwood
Black Hills
North Platte
South Platte
Rawlins
Laramie
CHEYENNE
Rock Springs
Green River
Evanston
Brigham City
Logan
Ogden
Great Salt Lake
SALT LAKE
Provo
Uinta Mts
Springville
Utah Lake
Eureka
Humboldt Lake
Mt.Shasta
Trinity Mts
Redding
Marysville
Reno
Virginia City
CARSON CITY
Austin
Eureka
Ely
Elko
Humboldt River
Sierra Nevada Mts
Sacramento
Santa Rosa
Vallejo
San Francisco
Oakland
Stockton
San Jose
Santa Cruz
Monterey
Fresno
Mt Whitney
Tulare Lake
Coast Range
Death Valley
Aurora
Tonopah
Goldfield
Pioche
Mohave City
Prescott
Jerome
Flagstaff
Grand Canon
Little Colorado River
Winslow
Mogollon Mountains
Point Conception
Santa Barbara
Los Angeles
SANTA BARBARA ISLES
Mt.San Bernardino
Pasadena
San Diego
Yuma
Colorado River
Gila River
PHŒNIX
Globe
Florence
Tucson
Nogales
Gallup
Las Vegas
SANTA FE
Albuquerque
Rio Grande
Canadian River
Cimarron
Raton
Trinidad
Durango
Pueblo
Las Animas
Colorado Springs
Pikes Peak
Central City
DENVER
Georgetown
Loadville
Greeley
South Platte River
Arkansas River
Yampa River
Green River
Uinta Mts
Wasatch Mountains
Colorado River
San Juan River
Virgin River
Silver City
Mesilla
Juarez
El Paso
Roswell
Rio Grande
Largest City in each State underlined
1000 SQUARE MILES
Longitude West from Washington

THE ROCKY MOUNTAIN AND PACIFIC STATES

LESSON XLI.

1. West of the Central states are the Rocky Mountain and Pacific states. These are so called because the Rocky mountains cross them from north to south and the Pacific ocean borders them on the west.

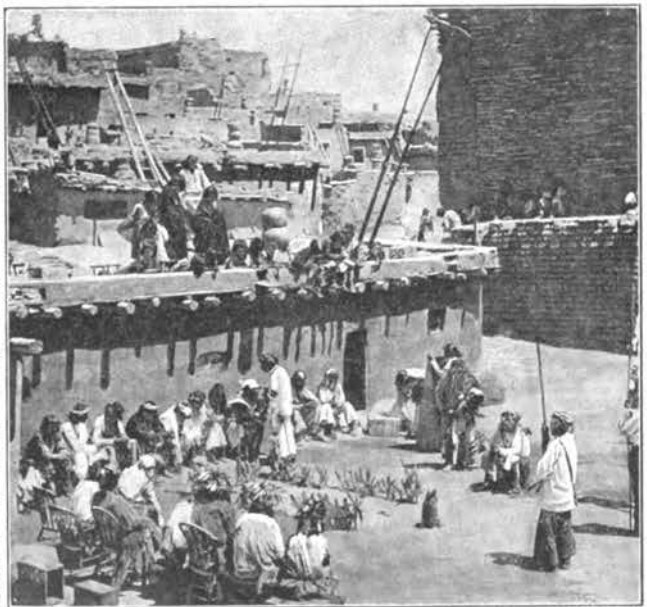
They are Colorado (*col-o-rah'-do*), New Mexico, Wy-o'-ming, Monta'na (*mon-tah'-nah*), Arizo'na, Utah, Idaho, Nevada (*ne-vah'-dah*), California, Oregon, and Washington. The Territory of Alaska (see map of North America, p. 33) also is classed with this group.

2. Early History.—About eighty years ago Indians and Spaniards were almost the only inhabitants of this part of our country.

It is easy to tell where the Spaniards were. On the map we find the names San Francisco, Santa Fé (*fay*), and many others beginning with San or Santa, which is the Spanish for *saint*. Sierra Nevada, too, is a Spanish name. Nevada means *snowy*, Sierra means *saw*. Where these Spanish names are found, the settlers were Spaniards.

In California, the Spanish settlers were very prosperous. They were stock-raisers and fruit-growers. They had immense flocks of sheep, and the vineyards and orange groves planted by them are still productive.

In 1848 gold was discovered in California, and people flocked there from all parts of the United States. Some time after this, silver was found in Nevada, and since that time rich mines of gold, silver, copper, and lead have been discovered in various parts of the Rocky mountains.



Zuni Indian village, New Mexico. The houses are built of sun-dried brick or of stone. The entrances to the houses are reached by ladders.

In 1867 the United States bought Alaska from

Digging and washing gold in Alaska at Cape Nome.

Russia. The only inhabitants were Indians, Eskimos, and a few traders. Since then gold has been found in that region and thousands of people have gone there.

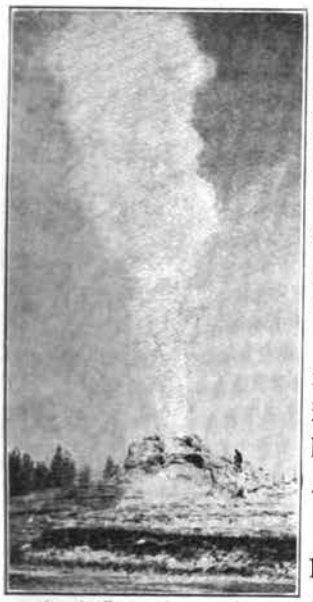
3. Indians.—Many of the Indians still remaining in the United States are found in the Rocky mountain and Pacific regions. They are slowly learning to live like white men, and schools have been established for them. Lands called reservations are set apart for the tribes to live on.

4. Animals.—Many people from the Eastern states, and even from Europe, go every year to this part of our country to hunt. They kill grizzly and black bears, deer, wild goats, and other animals.

For Recitation.—Who were the first settlers in this section? What led to the rapid settlement of this part of the country? What population besides the white settlers has this section?

LESSON XLII.

1. Surface.—In the Rocky mountain and Pacific states are to be found the highest and most mountainous parts of our country. Here are



Castle Geyser in eruption.

the Rocky mountains, with many peaks nearly three miles high, the Great plateau, the Sierra Nevada, and the Cascade range. Some of the towns among the mountains are more than two miles above the sea.

Alaska is crossed by mountain ranges. Here is Mount McKinley, the highest peak in North America.

2. The Great Salt lake lies at the bottom of a deep basin or depression in the Great plateau. Its water is so salt that one cannot sink in it. It floats a man as brine floats an egg. The length of the lake is seventy-five miles. Steamers sail on it.

Yellowstone lake in the National park.

3. The Yellowstone National park is in Wyoming. It is a large region set apart by Congress to belong forever to the nation. Find it on the map.

It is famed for its geysers (*ghi'-sers*), canyons, and waterfalls. The geysers are springs that spout up hot water. One of them sends up a column of water 200 feet high.

The park contains also the canyons of the Yellowstone river. What are canyons? On page 38 is a picture of a canyon.

4. The scenery of these states is very grand. In California are the wonderful Yosemite (*yo-sem'-i-te*) falls. The water makes three leaps. The first of these is nearly a third of a mile, and the whole distance through which the water descends is about half a mile.

Yosemite Falls.

The **Yosemite valley,** through which the river runs after leaping the falls, is one of the grandest scenes in the world. It is shut in by walls of rock nearly half a mile high.

The "big trees" of California are among the largest in the world. Some of them are more than 300 feet high, twice as high as a very tall church steeple, and more than 100 feet around.

For Recitation.—Which are the most mountainous parts of our country? Name the principal mountain ranges of this section. For what is the National park noted? What natural curiosities are found in California?

One of the "Big Trees" near Fresno, California. We see a troop of United States cavalry drawn up along the tree and on top of it to be photographed.

LESSON XLIII.

1. Climate.—The Sierra Nevada and the Cascade ranges divide this section into two portions, which have very different climates. To the east-

Making raisins in California. The grapes are spread out on large trays and dried in the sun.

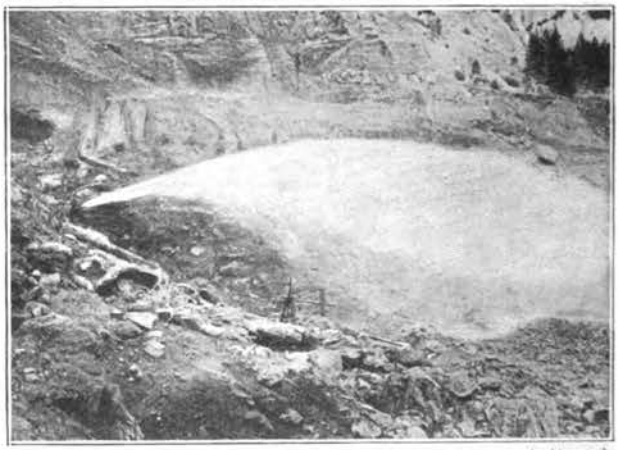
ward very little rain falls, and the climate is very dry.

Westward there is more moisture. Oregon and Washington have a climate like that of Maryland. In California there is a *wet* season and a *dry* season. For six months (from November to May) there is abundance of rain; for six months again (from May to November) there is hardly any rain.

2. Irrigation.—In many parts of this section no crops can be raised unless the fields are watered. The farmers, therefore, dig ditches to conduct water from the rivers to their farms, so that they can flood the fields. Some of these ditches are miles in length. Watering land in this way is called **irrigation.**

3. Products.—In the states bordering the Pacific there is a rich agricultural region. The finest wheat, barley, hops, and oats are raised. In California fruits and vegetables grow to a wonderful size. Oranges, lemons, grapes, prunes, and pears are produced in great abundance. This state is famed for its wines and raisins.

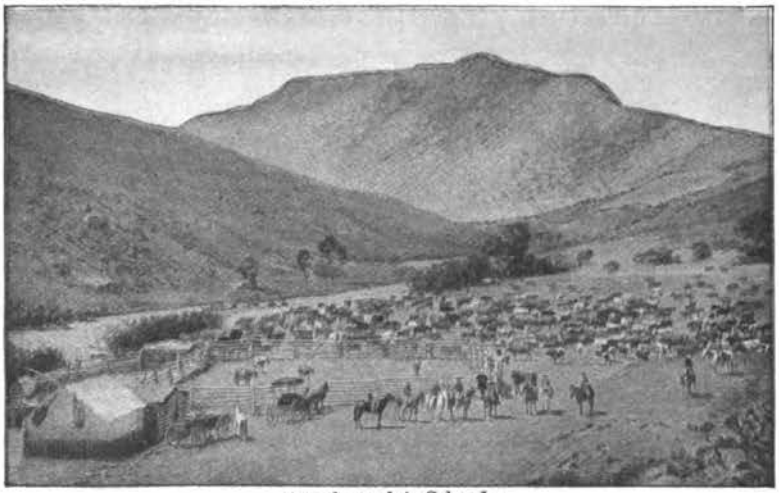
4. Stock-raising is a leading occupation in many parts of this section. Colorado and Wyoming are noted particularly for their cattle. California is a great sheep-raising region. Its wool is famous for fineness and excellence.



Hydraulic mining in California. A powerful stream of water is directed against the banks of gravel containing gold. In this way the banks are washed down and the gold is afterwards sorted out.

5. Mining is another leading industry. The mines are chiefly among the mountains. Gold, silver, quicksilver, copper, and lead are mined. California is noted for its oil wells.

Quicksilver is a curious metal that runs like water. We see it in the bulbs of most thermometers. The mine of New Almaden, in California, is one of the richest known.



A cattle ranch in Colorado.

6. In Oregon and Washington **lumbering** and **salmon-fishing** are valuable industries; in Alaska salmon and seal-fishing are important industries.

Timber and canned salmon are shipped from these places to all parts of the world.

A fish-wheel in Oregon. To the outside of this wheel nets are fastened which dip underneath the water when the wheel is turned. In this way the salmon are caught and landed in the boat.

7. The commerce is important. Machinery and other supplies for miners, and articles for home use are brought from the manufacturing states; gold and silver, wool and fish are exported.

8. Cities.—San Francisco is the largest city on the Pacific coast. It carries on much of the foreign commerce of this section. It imports silks and tea, and exports wheat, lumber, and the precious metals. We enter the harbor by a passage

In the harbor at San Francisco.

remarkable for its beauty. It is called the **Golden Gate.**

Los Angeles is the second city of the state in size and importance. There are many oil wells near, and fruit canning and drying are leading industries.

Sacramento, the capital of California, is noted for its magnificent capitol.

Portland, the largest city in Oregon, is the chief shipping port for the wheat and lumber of this state.

Astoria, at the mouth of the Columbia river, has a large business in canning salmon.

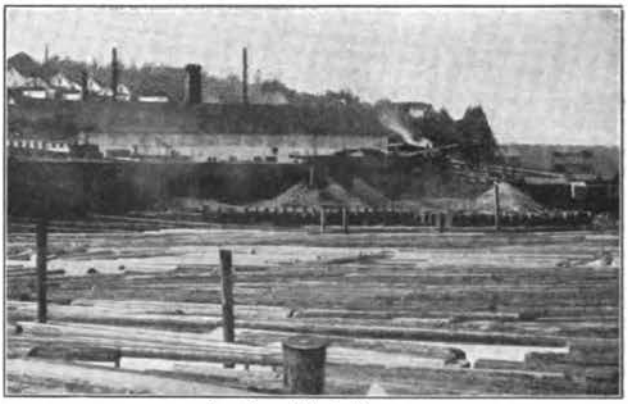
The city of Denver.

Denver is the great business city of Colorado, and a favorite place of residence. Supplies for the mines, railroads, and ranches are bought here.

Colorado Springs, near the Rocky Mountains, is a health resort. **Cripple Creek** is noted for gold mines.

Seattle, the largest city of Washington, is an important shipping point. Three great railroads that cross the continent end there.

Tacoma, the second city in size, has a splendid harbor and large lumber mills.



Lumber mills at Tacoma.

For Recitation.—What can you tell of the climate of this section? What are the chief products? What parts are noted for stock-raising? What are the mineral products? In what parts are lumbering and salmon-fishing important? What are the chief exports? **For what is Alaska famed? Describe the chief cities.**

REVIEW OF THE UNITED STATES.

In what continent is the United States? In which hemisphere? What country lies north of it? What country south? Why is our country called the United States? How long is the country from east to west?

Groups of States.—*Where is each group? Of what states is each composed? What is the capital of each state?*

(1) NEW ENGLAND. (2) MIDDLE ATLANTIC. (3) SOUTHERN. (4) CENTRAL. (5) ROCKY MOUNTAIN AND PACIFIC.

Islands.—*Near what part of the coast?*

LONG ISLAND. NANTUCKET. FLORIDA KEYS.

If you were on any one of these islands, upon what water would you look?

Capes.—*On what part of the coast?*

COD. HATTERAS. HENRY. LOOKOUT. FEAR. SABLE. MENDOCINO. MONTAUK POINT.

Mountains.—*Where are they, and in what direction do the ranges extend?*

APPALACHIAN:	Allegheny,	White,
	Blue Ridge,	Green,
	Cumberland,	Adirondacks.
ROCKY:	Bitter Root,	Pike's Peak,
	Wind River,	Fremont's Peak.

SIERRA NEVADA. CASCADE. COAST RANGE. Mount Whitney, Mount Hood.

What grows upon the sides of the Appalachian mountains? What minerals are found among these mountains?

Bays, Sounds, and Gulf.—*Where is each? Is it of commercial importance? Why?*

PENOBSCOT. MASSACHUSETTS. NARRAGANSETT. DELAWARE. CHESAPEAKE. LONG ISLAND SOUND. ALBEMARLE. PAMLICO. PUGET. GULF OF MEXICO.

Rivers.—*Where does each rise? In what direction and into what does it flow? Through (or between) what states does it flow? Can you name a city upon its banks? What is produced in the country through which it flows?*

MISSISSIPPI:	Missouri,	Tennessee,
	Ohio,	Arkansas.
	Red,	

PLATTE. YELLOWSTONE. HUDSON. JAMES. SAVANNAH. BRAZOS. COLORADO. KANSAS. COLUMBIA. YUKON. MERRIMAC. PENOBSCOT. CONNECTICUT.

Cities.—*Where is each? On what water? For what noted?*

SEAPORTS:	New York,	New Orleans,*	Portland,
	Philadelphia,*	San Francisco,	Norfolk,
	Boston,	Charleston,	Galveston,
	Baltimore,*	Savannah,*	Wilmington.
LAKE PORTS:	Chicago,	Cleveland,	Detroit,
	Buffalo,	Milwaukee,	Duluth.

* These are practically seaports.

INLAND CITIES:	St. Louis,	Pittsburg,	Denver,
	Cincinnati,	Louisville,	Indianapolis,
	Washington,	Minneapolis,	Des Moines,
	Atlanta,	Rochester,	Worcester,
	Memphis,	San Antonio,	Kansas City.

MISCELLANEOUS REVIEW.

Of how many states did our country first consist? Where were they? How many states are there now? Name the groups. What different kinds of people would you find in different parts of our country?

What is the capital of our country? What is the title of the highest officer in the United States? Of the highest officer of a state? Of the highest officer of a city?

In what direction must we travel from New York to enter Canada? What state would you enter if you traveled directly south from your home? Name some of the largest cities of the United States.

Suppose you should take a trip up the Mississippi from New Orleans to St. Paul, what principal crops would you see by the way?

Where do you find the highest mountains in our country? If you should make a journey from Boston to San Francisco, would you see more level land on the way or more mountains? Would you notice very great changes of climate?

How many and what seasons are there in the year in your state? In what state is the year divided into a rainy and a dry season?

Where would you find the largest river in our country? The largest fresh-water lakes? A salt lake? Where would you find the highest waterfall? Where the grandest?

In what state or states would you see sugar-cane growing? Cotton? Rice? Oranges? Where would you see the largest wheat and corn fields? The largest tobacco fields?

Where and at what time of the year would you find the farmers making maple sugar? What states produce coal? Salt? From what states do we get petroleum? For what is petroleum used?

What part of our country yields the most gold and silver? Where are the richest copper mines? In what states are the people most largely occupied in manufactures? In commerce? Fishing? Stock-raising? Lumbering?

What articles sold in a grocery store are produced in the United States? Which of them might be raised by New England farmers? By southern? By western?

Do you know of any natural curiosities in your own state? If so, where are they? What is remarkable about them? From what states are precious metals obtained? Which do you think the more important, the mineral or the vegetable productions of our country? Why?

In what part of the United States do the Indians chiefly live? If a boy should lose his boat upon the Allegheny river, on what waters might it float to the Atlantic ocean?

THE DOMINION OF CANADA.

LESSON XLIV.

1. Crossing the northern boundary of the United States, let us make a visit to the colder countries of North America.

2. The Dominion of Canada is about as large as our country. It extends from the Great Lakes to the Arctic ocean, and from the Atlantic to the Pacific.

Canada is not only near us, but quite like us. Just as the United States is made up of states and territories, so Canada is made up of what are called provinces and territories. The provinces are Ontario, Quebec, New Brunswick, Nova Scotia, Prince Edward Island, Manitoba, Saskatchewan, Alberta, and British Columbia.

In the fields of the Saskatchewan.

The Dominion of Canada, Newfoundland, and Labrador, taken together, are sometimes called British America.

3. How Governed.—Laws are made for all the provinces by the Canadian Parliament, which is like our Congress. It meets at **Ottawa,** the capital of Canada.

The chief officer of the Government is not a president elected by the people, but a governor sent out by the sovereign of England.

4. Early Settlers.—Canada was first settled by the French. More than one hundred years ago England and France fought with each other for the possession of the country. England was victorious.

The descendants of the old French settlers still speak the language of their forefathers. Many of them speak English also. They are noted for their gayety of disposition and their adherence to old customs.*

5. Surface.—Along the Pacific coast Canada is mountainous. The Rocky mountains extend through it from north to south.

Most of Canada, however, is level. South of the Sas-katch'-e-wan river are prairies like our own.

These prairies and the valley of the St. Lawrence are the most fertile parts of Canada. They yield abundant crops of wheat, barley, and oats.

6. Climate.—The climate of the seaboard provinces is like that of New England; the inland provinces are colder; Manitoba has a climate like that of North Dakota; the climate of Southern British Columbia resembles that of Washington.

Logging scene in Canada.

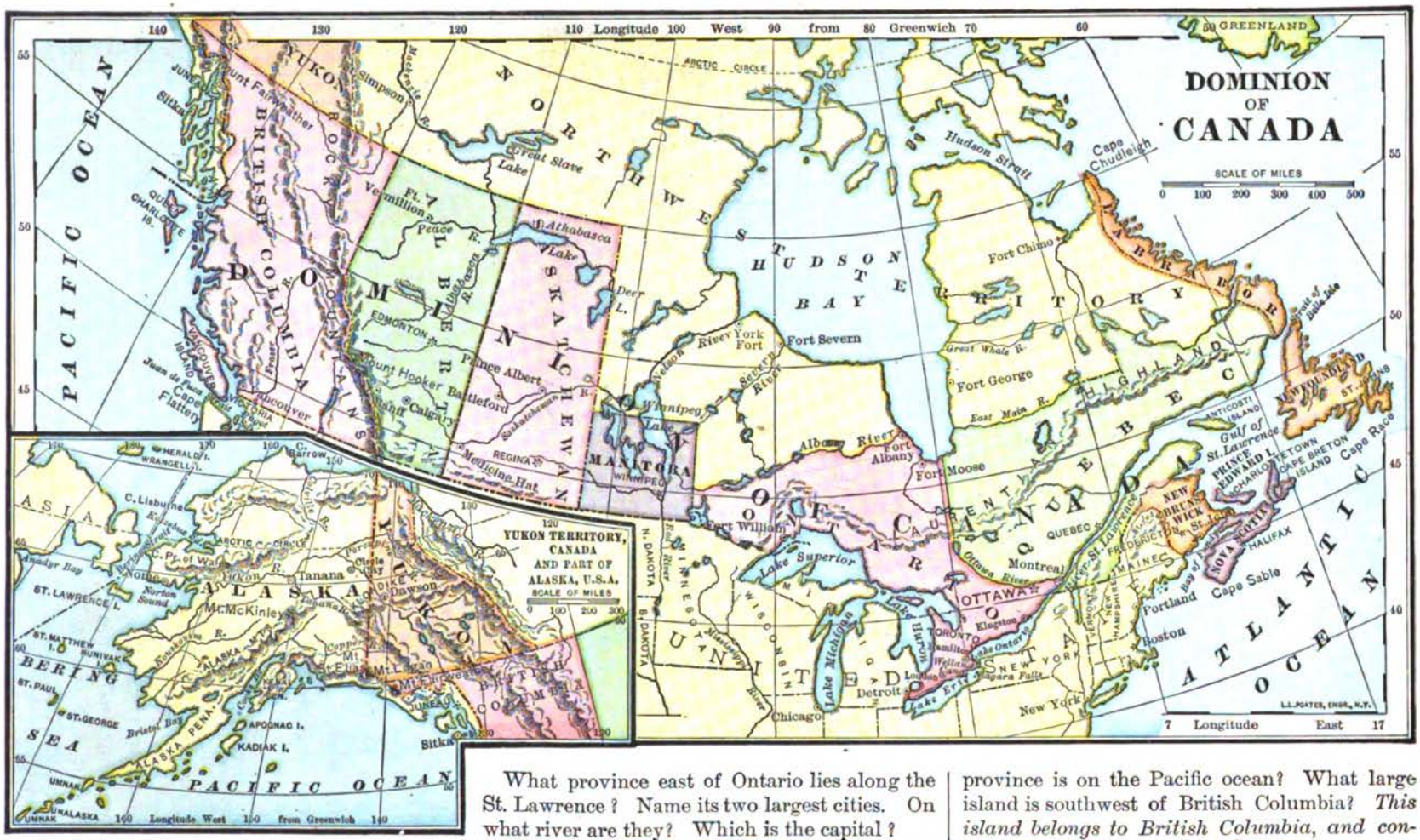
As we approach the Arctic region, the summers grow shorter and shorter until the year is nearly all winter. If we should travel northward from Lake Winnipeg, we should pass at first through immense forests. Then we should notice that the trees are more and more stunted, until at length even the fir-tree, which is a lover of cold and snow, disappears.

We should be in the midst of a treeless waste, where the ground is seldom free from ice and snow.

Of course we should see no houses in this part of our journey. Who would like to live in such a region?

7. Minerals.—British Columbia, like California, produces gold. Ontario has rich mines

* NOTE.—In Longfellow's poem, "Evangeline," many interesting allusions to the old French settlers and their customs are found.



MAP STUDIES.

What ocean is on the east of Canada? What ocean is on the west? What lakes are on the southern border?

What great bay is in the interior? By what strait is this bay connected with the ocean?

Which of the provinces of Canada borders on the Great lakes? On what river is Ottawa? On what lake is Toronto?

What province east of Ontario lies along the St. Lawrence? Name its two largest cities. On what river are they? Which is the capital?

What province is east of Maine? Name the capital. In what direction from New Brunswick is Nova Scotia? What bay separates these provinces? *This bay is famed for its high tides.* What is the capital of Nova Scotia? Prince Edward island is in what gulf? Name the capital. What province is intersected by Lake Winnipeg? Name the capital. What two provinces are west of Manitoba? Name their capitals. What province is west of Alberta? What province is on the Pacific ocean? What large island is southwest of British Columbia? *This island belongs to British Columbia, and contains its capital.* Name the capital.

What division of Canada contains the famous Klondike gold mines? *Yukon Territory. North of the provinces is a vast extent of territory which comprises the great fur hunting regions.*

What large island is east of the gulf of St. Lawrence? Name the capital. Where is Labrador? *Labrador and Newfoundland together form a British colony distinct from the Dominion of Canada.*

of silver, copper, and iron. Nova Scotia has large and valuable coal mines.

8. Lumbering.—The forests of Canada are very large, and are full of fine trees. Lumbering is one of the most important occupations.

A smelter in British Columbia.

Great rafts are floated down the St. Lawrence, as upon our own Mississippi. They are brought to Quebec, where they may be seen along the river bank for a distance of several miles.

9. Fur-bearing Animals.—Canada is one of the great fur-producing regions of the world. Foxes, wolves, sables, minks, martens, and other fur-bearing animals are found in abundance in the forests.

Hundreds of men, chiefly Indians, are employed in trapping the animals. They travel miles and miles through the forests in dog-sledges, or sail up and down rivers and lakes in canoes of birch bark, to visit their traps and skin the animals caught.

The skins are sold to the Hudson Bay company. This company has more than one hundred trading posts, called "forts," where the trappers bring the skins and sell them to the traders. York Fort formerly received all the skins collected at the other forts, and every year, when the ice in Hudson bay melted, ships came from England and took away the skins. Now the skins are sent to Winnipeg, which is the headquarters of the Hudson Bay company.

The home of a Canadian farmer. During the winter he cuts logs in the forest and hauls them to the banks of the streams. In the spring they are floated down to mills, where they are sawed into lumber.

10. Cities.—**Montreal** is the chief commercial city of Canada. It exports wheat and cattle.

Quebec is like a quaint old European town. It is built partly on the heights overlooking the St. Lawrence and partly on the river bank. It has an extensive commerce, and is a great timber market.

The great battle that gave Canada to England was fought in 1759 before the walls of Quebec. General Wolfe commanded the English troops; the Marquis of Montcalm the French. Both commanders lost their lives. A single monument has been erected to their memory.

Toronto has important manufactures, and is noted for its schools. **Halifax,** the capital of Nova Scotia, and **St. John,** in New Brunswick, have fine harbors. Their chief exports are lumber, fish, and potatoes.

Parliament buildings at Ottawa.

For Recitation.—What provinces does the Dominion of Canada contain? Who first settled Canada? What kind of climate has Canada? What are the leading products of Canada? What are the leading cities of Canada?

LESSON XLV.

1. Newfoundland.—Five years after Columbus discovered the New World, the English sent John Cabot on a voyage of discovery, to try and find a short passage to Eastern Asia. He sailed westward and discovered what he called a "*new-found-land*," a name which the island still retains.

Newfoundland has a cold climate.

Off the coast the densest fogs prevail. They are often so thick that the sailors cannot see from one end of their vessel to the other. Here, too, are seen those grand and beautiful, but chilly visitors, the gigantic icebergs, that float down from the shores of Greenland.

The **fisheries** of Newfoundland are the greatest in the world.

In the spring and summer codfish come here in immense numbers, and thousands of fishermen

A drove of seals on the coast of Labrador. These seals are not valuable for fur.

come to catch them. As many as 200,000 seals are killed every spring for their oil.

The Newfoundland dog, so famous for saving people from drowning, is a native of this island.

Labrador belongs to Newfoundland. Very few people live there; the climate is too severe. The coast is visited by fishermen and seal-hunters.

A scene in the Arctic regions. White bears hunting for seals on the ice. Notice how low the sun is in the sky, although it is in the middle of the day.

The few inhabitants are occupied in hunting seals, catching whales, and gathering eider-down.

The whale is furnished with a coat of fat several inches thick, which keeps him warm as he swims through the icy waters. This fat, or blubber, is melted down into oil. From the whale's mouth we get what is called whalebone, though it is not really bone. It is the whale's trap with which he catches thousands of little animals on which he feeds.

Eider-down is one of the most valuable products that we get from these icy regions. It is taken from the nest of the eider-duck. The mother bird plucks the down or soft feathers from her breast, and lines her nest with them to keep the ducklings warm. During the season the down is gathered every few days, and the poor duck plucks a fresh supply from her breast.

Upernavik (*oo-per-nah'vik*) is nearer the north pole than any other town in the world. Find it on map, p. 33.

2. Greenland, a vast ice-covered island, is the largest in the world. In summer a strip of land along the coast is *green* with grass and flowers. For this reason an early explorer named it Greenland.

The trees are not more than six feet high. Buttercups and dandelions are found. A few vegetables are sometimes raised.

Snow falls in every month during the year except July.

A group of Greenlanders and their home. The house is built of stones and earth and has a chimney in the middle to let out the smoke.

3. Iceland is an island not far from Greenland. Both islands belong to Denmark, a country in Europe, and are called **Danish America.**

Iceland is famed for its volcanoes and geysers, or boiling springs.

The Great geyser sends up a

stream of water 100 feet high. **Mount Hec'-la** is the most noted volcano.

The climate of Iceland is far milder than that of Greenland. The people fish, raise sheep, and gather eider-down and Iceland moss. They export wool, salted fish, Iceland moss, and eiderdown.

Reykjavik (*rāk'-yah-vik*), the chief town, is only a small hamlet.

Eskimos building a winter hut out of blocks of snow.

4. Eskimos.—In Greenland and all along the Arctic shores—in Alaska and in northern Labrador—are the curious people called Eskimos.

They live in huts which are partly underground and which are often built of stones and earth. Sometimes these huts are made of blocks of snow, with sheets of ice for windows. To give heat and light in their huts, the Eskimos burn the oil of the seal or whale.

The Eskimos do nothing but hunt and fish. They travel in sledges drawn by four or eight dogs. The runners of the sledges are made of driftwood, or of the bones of the whale. In catching whales, they use a line with a harpoon at one end and an inflated sealskin at the other. Pulling this skin through the water tires out the wounded whale.

Eskimos hunting the walrus in their canoes, or kayaks. One of them is just about to throw a harpoon with a rope tied to it.

For Recitation. — For what is Newfoundland famed? What can you tell about Greenland? What have you learned of Iceland? What can you tell about the Eskimos?

MEXICO AND CENTRAL AMERICA.

LESSON XLVI.

1. Mexico.—Leaving the snow huts of the Eskimos, let us now visit the warm countries of our continent.

Homes of native Mexicans.

First of all let us glance at Mexico, our nearest neighbor on the south. Here it is seldom cold enough for ice to be formed, except high up among the mountains.

2. Surface and Climate.—Along the coast is a strip of lowland. Most of the country, however, is a great plateau, about a mile high.

The lowland is the **hot region.** The plateau is the **temperate region.**

A large Mexican "hacienda," or farmhouse.

The climate of the plateau is delightful. No fires are needed to keep one's house warm, roses and violets bloom, and green peas are in season all the year. Most of the people of Mexico live here.

3. The agricultural products of the plateau are very different from those of the lowland.

On the **plateau** the same grains and fruits grow as in our own country, only that in Mexico as fast as one crop is ripe and gathered, another is planted. Three or four crops of corn are harvested in the year. The cotton-plant with us dies as soon as frost touches it, but in Mexico there is a kind that goes on producing for years.

In the **lowlands** sugar-cane, oranges, bananas, pineapples, coffee, and vanilla are grown. Here, too, are plantations of the evergreen cacao (*ka-ka'-o*) tree, the seeds of which, when roasted, ground, and mixed with sugar, make chocolate.

The **maguey** (*ma-gway'*), or Mexican aloe, is a native of Mexico. The sap of this plant is collected and allowed to ferment. It is then a drink like cider, and forms the national beverage, which is called pulque (*pool'-kay*).

MAP STUDIES.

What river is between Mexico and the United States? From what one of the states does this river separate Mexico?

What ocean bounds Mexico on the west and south? Where are the Sierra Madré mountains? *Sierra is a Spanish word meaning saw.*

Where also in North America are mountains called Sierras? *This reminds you that Mexico, like California, was settled by Spaniards.* Where is Yucatan?

Where is lower California? What other California is there? Two of the volcanoes of Mexico are *Po-po-cat'-e-petl* and *Jorullo* (ho-rool'yo).

What is the capital of Mexico? *The city of Mexico is farther south than Havana. It should therefore be hotter than Havana. But it is not. The city is high up among the mountains, and for this reason is never very hot.* Where is Vera Cruz?

What sea is northeast of Central America? What ocean on the south? In what zone is Central America? (See map, page 17.)

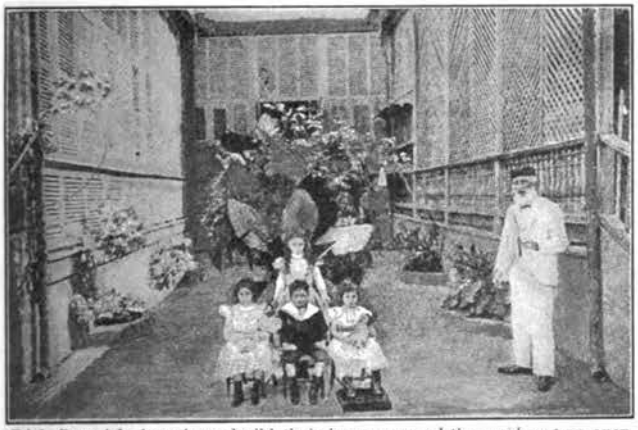
Name the capital of each of these countries.

British Honduras,
Guatemala (*gwah-te-mah'-la*),
Honduras (*hon-doo'-ras*),
Panama (*pan-a-mah'*),
Nicaragua (*nik-ar-ah'-gwah*),
Costa Rica (*kos-tah ree'-kah*),
Salvador (*sahl-vah-dore'*).

Which is the most northern country of Central America? The most southern? Where is Lake Nicaragua? How is it connected with the Caribbean sea? Where is the volcano of Coseguina (*ko-say-ghee'-nah*).

The leaves of the maguey plant are six or eight feet long They are used for boards and shingles. The sharp thorns at the ends of the leaves are used to serve for nails, needles, and pins. The fiber is twisted into rope and string.

The **cochineal** cactus was formerly cultivated very largely, but is not so important now because other dyes are used. Upon its thorny leaves countless numbers of the cochineal insect feed.



Rich Spanish-Americans build their homes around three sides of an open court filled with flowers and called a patio. Through this patio people enter and leave the house.

They are gathered, killed with hot water, and dried in the sun. When ground into powder, they make a beautiful *scarlet dye*.

4. The mineral wealth of Mexico is very great. Its mines of **silver** are the richest in the world. In the gulf of California **pearls** are found.

5. In **government** Mexico is a republic, like our own country. It consists of a number of different states, united under one president.

6. Early History.—When Europeans first came to the "New World," the king of Mexico was Mon-te-zu'-ma.

In 1519 a Spaniard called **Cortes** went to Mexico with 600 Spanish troops. Montezuma treated him kindly; but the Mexican people felt sure that Cortes wished to take their land. They attacked his troops, and when Montezuma begged them not to do so, they stoned him. In a few days he died. Cortes captured Mexico, and it belonged to Spain until 1821. Then it became independent.

Gathering pulque in Mexico.

7. Cities.—Mexico, which stands on the site of the old capital, is a beautiful city. It is surrounded by majestic mountains, two of which are always snow-clad. The **climate** is delightful. The houses are built without chimneys, and the gardens are fragrant with flowers all the year round.

Vera Cruz (*vay'-rah-krooz*) is the principal seaport. It is a very unhealthful city.

8. Central America lies between Mexico and South America. It contains six republics, and the colony of British Honduras.

The country is mountainous, and its climate is like that of Mexico.

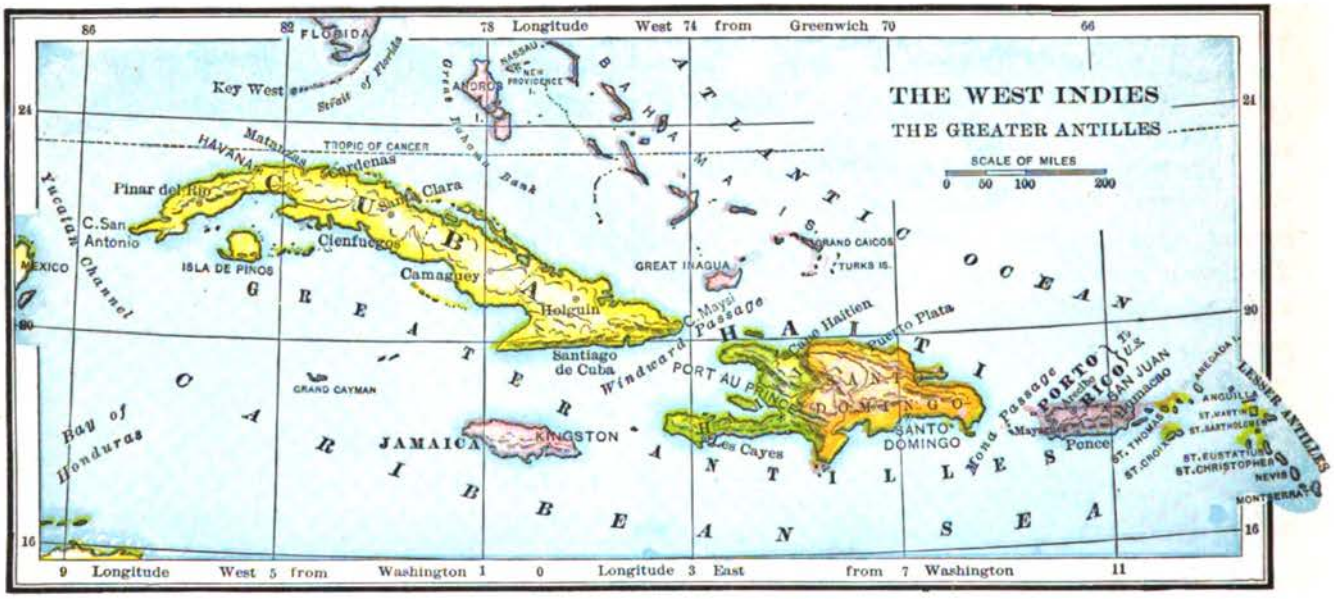
Many of the mountains are **volcanoes.** Coseguina is one of the most remarkable. In 1835 it threw out such a shower of ashes that the air was darkened, even at places fifty miles distant. Friends could not recognize one another, and chickens went to roost.

Shipping bananas in Costa Rica.

The most important **products** are coffee, cacao, sugar, vanilla, and mahogany.

The **forests** yield mahogany, which is much used in making furniture.

We get coffee from all the Central American states,



MAP STUDIES.

Name the four largest islands of the West Indies in the order of their size. What is the group called to which these four islands belong? *The other islands belonging to the West Indies are the Lesser Antilles, a number of small islands lying east of the Caribbean sea, between Porto Rico and South America.* In what direction from Cuba are the Bahama islands? Where is St. Thomas?

What sea is south of the Greater Antilles? What ocean is northeast of the West Indies? What bay is west?

What channel separates Cuba from Mexico? What passage separates Cuba from Haiti? Haiti from Porto Rico? What strait is between Cuba and Florida?

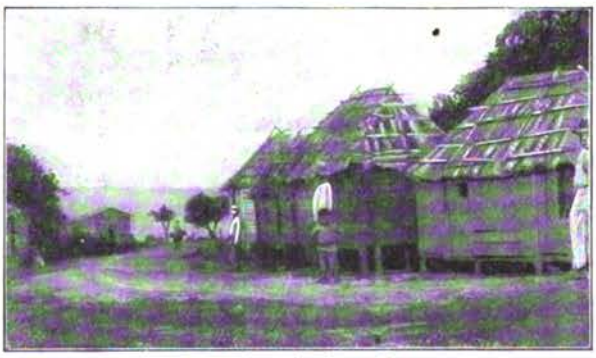
Where is Cape San Antonio? Cape Maysi?

Where is Havana? Santiago de Cuba? Matanzas? Port au Prince? Santo Domingo? San Juan? Ponce?

but that which comes from Guatemala is best known. From the lowlands along the coast we buy fine tropical fruits.

9. The Isthmus of Panama connects South with North America. This isthmus is an independent Republic.

A ship canal is being cut through the isthmus which will enable ships to go from the Atlantic to the Pacific by a route thousands of miles shorter than the one now followed. The strip of land through which the canal will pass is known as the Panama Canal Zone, and is controlled by the United States.



Native homes in Porto Rico.

10. West Indies.—Let us take a steamship and go from Central America north across the Caribbean sea. We shall come to the West Indies, a number of islands that are part of North America. We study these last, but they are the part of America which Christopher Columbus visited first, and which Europeans first settled.

For many years they belonged to Spain, but in time other nations gained most of them. England captured Jamaica; Haiti, after belonging for a while to France, finally became independent and is now made up of two negro republics.

Spain held Cuba and Porto Rico until 1898. At that time a revolution was going on in Cuba, and our country sent troops and vessels to aid the Cubans. By this means the independence of the island was assured under our protection. We also forced Spain to give up Porto Rico, which is now a part of the United States.

11. In the interior of the large islands are

mountains and fertile valleys, but near the coast we find plains.

The climate and products are much like those of Mexico. Sugar, coffee, tobacco, and fruit are sent to the United States.

12. Cuba.—Cuba, the richest of these islands, contains about as many acres of land as New York state. It is about twice as long as New York from east to west, but is so narrow that no portion of it is more than fifty miles from the sea.

The population is about half as great as that of New York city, and about one-third of the people are negroes.

Native homes in a Cuban village.

Obispo street, the principal shopping street in Havana.

Cuba contains many sugar plantations, and has long been the chief country of the world in the production of cane sugar. Much fine tobacco is grown, and Cuban cigars are everywhere famous. Mahogany and fruits, also, are exported, and flour and cloth are imported.

Havana, a large city on a fine harbor, is the center of a system of railroads. **Matanzas** is an important seaport. At **Santiago de Cuba** the United States captured the Spanish fleet and army.

A street in Kingston, Jamaica.

13. Porto Rico.—Among the Porto Ricans are many people of wealth, but the working class are very poor. There are about two hundred miles of railroad in the island. **San Juan** is on a land-locked harbor. **Ponce** (*pohn'tha*) is the second city in importance, and **Mayaguez** (*mi-ah-gwāth'*) is the third. The chief exports of the island are coffee, sugar, and cocoanuts.

14. Jamaica.—The white people of Jamaica are English, but there are many negroes. **Kingston** is the chief town.

REVIEW OF NORTH AMERICA.

Countries.—*In what part of the continent is each? Name the capital.*—DOMINION OF CANADA. NEWFOUNDLAND. UNITED STATES. MEXICO. CENTRAL AMERICA (each state).

Islands.—*Near what part of the coast? To what country does each belong?*—GREENLAND. ICELAND. NEWFOUNDLAND. CUBA. HAITI. VANCOUVER. QUEEN CHARLOTTE.

Capes.—*On what part of the coast?*—FAREWELL. RACE. SAN LUCAS. SABLE. POINT BARROW.

Mountains.—*Where are they, and in what direction do they extend?*—ROCKY. SIERRA MADRÉ.

Bays, Gulfs, and Sea.—*Where is each? Is it of commercial importance?*—BAFFIN BAY. HUDSON. GULF OF MEXICO. GULF OF CALIFORNIA. CARIBBEAN SEA.

Straits.—*Each connects what waters? Separates what lands?*—DAVIS. HUDSON. BERING.

Rivers.—*Where does each rise? Into what does it flow?*—ST. LAWRENCE. MACKENZIE. YUKON. COLUMBIA. SASKATCHEWAN. NELSON. RIO GRANDE.

Lakes.—*Where is each? What outlet has it?*—GREAT BEAR. GREAT SLAVE. WINNIPEG. SUPERIOR. MICHIGAN. HURON. ERIE. ONTARIO.

Cities and Towns.—*In what country? On or near what water?*—QUEBEC. MONTREAL. SITKA. NEW YORK. SAN FRANCISCO. PANAMA. VERA CRUZ. HAVANA.

SOUTH AMERICA.

LESSON XLVII.

1. South America.—Leaving North America, we come now to South America. The coast line of this continent is broken only here and there by bays or gulfs, and there are only a few good harbors.

South America is crossed by the equator, and all the northern part of it is in the **hot** or **Torrid**

The Andes in Ecuador. The snow-capped mountain is Chimborazo.

zone. Here, except high up among the mountains, it is always summer. The flowers are never killed by frost.

As we go south from the equator, the climate grows cooler, just as it does if we go north. South does not always mean hot.

The southern end of South America reaches down nearly to the region about the South pole, which is always as cold and icy as that about the North pole.

2. Surface.—The surface of South America is very much like that of North America. The western part is mountainous; the eastern is mostly level, and consists chiefly of river valleys.

A railroad bridge among the Andes.

3. The Andes extend along the Pacific shores of South America from one end of the continent

These llamas which you see here have been brought to the railroad at La Paz to carry packs of goods to some place far away into the country.

to the other, just as the Rocky mountains extend through North America.

The Andes are the longest mountain range in the world. They are 4,500 miles in length. They are grander and loftier than the Rocky mountains. Many of their peaks are more than four miles high, and are always white with snow.

The **passes** or roads over the Andes are steep and dangerous. Travelers usually are carried across on the backs of mules or sitting on chairs which are strapped to the backs of Indians. The llama and mule generally are used for carrying goods.

Among the mountains are ravines or gorges hundreds of feet deep. Some of these are crossed by suspension bridges made of rope.

Railways have been built across the Andes.

4. Volcanoes.—More than fifty peaks among the Andes are volcanoes.

If you stand in the public square of the city of **Quito** (*kee'-to*), you can see eleven snow-capped volcanoes all at once. One of these, **Chimborazo** (*chim-bo*

rah'-zo), is so lofty that it can be seen by moonlight at a distance of ninety miles.

Cotopaxi (*ko-to-pax'-e*), a near neighbor of Chimborazo, is the grandest of all the volcanoes. Its terrific eruptions sound like the discharge of the largest cannons, and can be heard at a distance of 100 miles.

5. Earthquakes occur very frequently in the countries which are crossed by the Andes.

During an earthquake the ground trembles or shakes, the houses rock to and fro, and often fall. The sea sometimes rushes in on the land, and the people have to run for their lives to the hilltops. Cities and towns are often nearly destroyed, and many lives are lost.

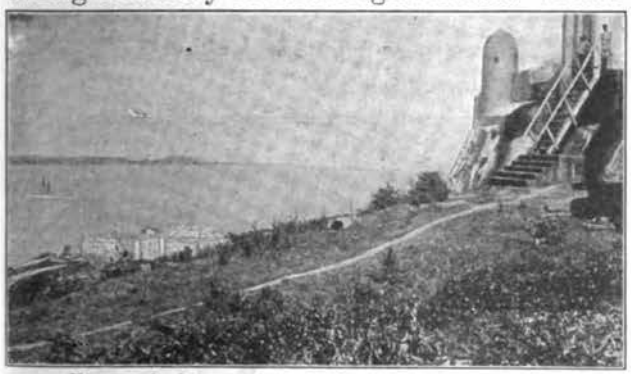
The upper part of the Amazon river in flood time. The current is swift and carries along trunks and branches of trees.

6. Rivers.—The great rivers of South America are the Amazon, the Orinoco, and the La Plata.

These rivers and their tributaries are all on the east side of the Andes, and flow into the Atlantic.

The **Amazon** reminds us of our own Mississippi; only, instead of flowing from north to south, it flows from west to east.

It carries more water to the sea than any other river. In some places it is so wide that a vessel sailing on it may be out of sight of land. Steamboats ascend it for 2,200 miles, almost across the continent.



View on the Orinoco river, showing two forts and steamboat.

The **Orinoco** overflows its banks every summer. Its waters teem with alligators, and are the home of the curious fish called the electric eel. The shock given by one of these electric eels is so severe that horses, when fording the pools, are sometimes knocked down by it.

On the **Rio de la Plata** (*lah plah'-tah*) and its tributaries, steamboats sail more than 1,200 miles into the heart of the continent.

7. Rainless Region.—If we look at the map of South America, we notice that hardly a single river can be seen along the west coast. Why should there be plenty of water and great rivers on the *east side* of the Andes, but little or none on the *west side?* Let us see.

In that part of South America which is in the Torrid zone the winds come mostly from the Atlantic ocean. They carry the clouds westward over the land. The cold air above the mountain-tops cools the clouds and turns them into rain and snow. But this is done almost wholly on the eastern side of the Andes.

When the winds reach the western side of the mountains they have lost their moisture; the clouds have become rain. Thus it is that on the eastern side of the Andes we find plenty of rain and large rivers; on the west side only a few small rivers, and in some parts not a drop of rain all the year round.

For Recitation.—In what zone is most of South America? What connects North and South America? What have you learned of the surface of South America? Name the great mountain range of South America. How do people cross the Andes? What are the great rivers of South America?

The falls on the Parana river on the border of Argentina.

LESSON XLVIII.

1. Plains.—The valleys or plains of the great rivers are called by different names: **Selvas, Llanos** (*lyah'-noce*), and **Pampas.**

2. The Selvas are the *forest plains* of the Amazon. Selva is a Spanish word that means *wood* or *forest.* These plains are covered with trees and shrubs and climbing vines, all growing so thickly together that monkeys can travel hundreds of miles on the tree tops without once coming down to the ground.

The only way of getting through the Selvas is to go by the water in canoes; and the vegetation is so dense, even down to the water's edge, that one may travel a whole day without finding room to land. The trees and shrubs "form a dense wall of verdure along the banks of the river."

Gathering rubber in Brazil. A notch is cut in the bark of the tree and a small cup is fixed below, into which the sap slowly drips for three or four hours. The upper picture shows the way in which the sap is thickened. A fire is built upon the ground and the funnel-shaped chimney placed over it, through which the smoke rises. The wooden paddle is then dipped in the vessel of sap and held in the smoke. This changes the white sap to a thin layer of brown rubber. The dipping and smoking is repeated again and again, until a large lump of rubber is formed on the end of the paddle.

The Selvas of the Amazon. Notice the thick growth of trees and shrubs, the vines and air-plants hanging from the branches.

A large number of the plants of South America seem to live on nothing but air. Hence, they are sometimes called *air-plants.* They cling, like moss, to the trunks and branches of trees. Many of them have flowers of curious shapes and exquisite colors. One that is pure white is shaped like a dove, another like a swan.

3. The Llanos, or *plains* of the Orinoco, are dotted with clumps of trees. When the river overflows them they look like a vast sea. After the flood subsides, a luxuriant crop of grass and flowers springs up, and vast herds of cattle find rich pasturage.

In the dry season these plains are parched, and the cattle wander for pasture to the hills.

4. The Pampas are the plains of the La Plata. They are covered with tall grass in the wet season, and in the dry season are parched like a desert. Countless herds of wild cattle feed upon these plains. Vast numbers of these cattle are slaughtered yearly. The meat and hides are exported.

5. Forests.—The forests of South America contain some of the most wonderful and useful trees and plants in the world.

The **palm** trees supply the Indian with almost everything that he needs.

A grove of palm trees.

A coffee plantation in Brazil. The ripe red berries are picked and put into bags. They are then carted to the pulping mill, which crushes the berry and removes the beans.

The fibers of the leaves, some of which are forty or fifty feet long, he twists into ropes or makes into hammocks and fishing-nets. With the leaves themselves he makes a roof and a door for his hut; from the bark he makes his canoe. The wax palm supplies him with candles.

India rubber, which has so many uses, comes chiefly from the Selvas of Brazil. It is the sap of the India rubber tree.

Man'-i-oc, or cassava, supplies the natives with a coarse kind of bread.

The root is dried and ground into meal. When needed for use it is mixed with water and baked.

Tapioca is made from manioc flour by separating the starch from it. Part of the starch is turned into sugar and forms in little lumps, or masses, which we call tapioca.

Quinine, so much used for the cure of fever, is made from the bark of a tree called cinchona (*sin-ko'-nah*), which grows on the slopes of the Andes. The Indians taught Europeans the use of the bark. When sick with fever they used to drink water from pools in which the boughs or dead trunks of cinchona trees had been lying.

A branch of the coffee tree, showing the way the leaves and berries are arranged on the stalk.

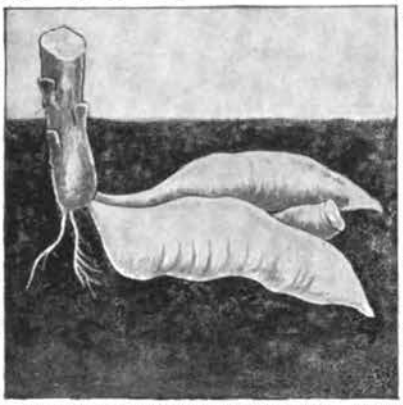
6. The cultivated products are such as belong to the Torrid and Temperate zones. As in Mexico, so here we find that different crops are raised according as the farms are among the mountains or in the lowlands.

Among the mountains and in the southern part of the continent, wheat and other products of the Temperate zone are cultivated.

In the lowlands sugar-cane, corn, cotton, cacao and coffee trees, manioc, pineapples, and bananas grow in profusion.

The pods, or gourds, of the cacao or chocolate tree. Each pod contains about two dozen dark-colored seeds. These seeds are dried in the sun much in the same way as coffee.

The **banana** supplies thousands of the people with their daily bread. When green, it is used as a vegetable; when ripe, it is eaten as fruit, or dried and grated into flour.



A stalk and root of the manioc plant. These thick roots are dried and made into flour, which forms the chief food of many of the people in warm countries.

Maté (*mah'tay*), or Paraguay tea (*pah-rah-gway'*), is widely used by the people of South America. It is the leaf of a tree which is something like our holly.

The **coffee** which we use comes chiefly from Brazil. That country produces more than one-half of all that is raised in the world.

Coffee is the seed of a beautiful shrub with dark, glossy leaves, white flowers, and scarlet fruit. The fruit, when ripe, is crushed to separate the seeds from the soft parts. The seeds are

Drying coffee in Brazil. After the beans are washed out of the pulp, they are exposed to the sun for about a week by being spread out upon hard, smooth ground. They must not be exposed to the rain or dew.

dried and put into bags, and are then ready to be sent to various parts of the world.

For Recitation.—What are the Selvas? What are the Llanos and Pampas? Name some of the most useful products that come from the forests of South America. Name the chief cultivated products of South America.

MAP STUDIES.

Of what countries are the following cities the *Capitals*?

Rio de Janeiro (*ree'-o de zha-na'-ro*), Lima (*lee'-mah*), Georgetown, Paramaribo, Cayenne (*kay-en'*), Caracas (*kah-rah'-kas*), Bogota', Quito (*kee'-to*), Sucré (*soo-kray'*), Santiago (*san-te-ah'-go*), BuenosAires (*bo'-nus a'-riz*), Asuncion (*a-soon-se-on'*), Mon-te-vid'-e-o.

What bounds South America on the east? On the west? On the north? What heavy line crosses the map of South America? What kind of climate has the northern part of the continent? In what zone is the southern part? What kind of climate has the southern part?

How are North and South America connected? What chain of mountains along the west coast of South America? In what direction and how far do they extend? On which side of the Andes are all the long rivers?

What countries are crossed by the Andes? What countries border on the Caribbean sea? On the Atlantic ocean? On the Pacific?

What country borders on the Pacific ocean and the Caribbean sea? What river flows in a northerly direction through Colombia? Where is Venezuela (*ven-e-zwee'-lah*)? What river crosses it? What lake in the northern part? What island near the mouth of the Orinoco? What country east of Venezuela?

Traveling on the pampas in Argentina.

What country south of Colombia? What are the countries that border on Ecuador (*ek-wah-dor'*)? *Ecuador is a Spanish word for equator, and the country is so named because the equator crosses it.* What city on the equator? What volcanoes do you find in Ecuador?

Which is the largest country of South America? What are the only countries of South America that do not touch Brazil?

What part of Brazil is crossed by the equator? In what zone is most of Brazil?

What is the great river of Brazil? Name its largest tributary. What capes on the coast? Where is the diamond district?

Where is Cuzco (*koos'ko*)? What great river rises in Peru? What lake between Bolivia and Peru?

Getting ox teams ready for work on a plantation.

What country southeast of Peru? Where is Potosi? Sucre? What country lies wholly west of the Andes?

Name its chief seaport. In what zone is the greater part of Chile? What islands west of Chile?

What country east of Chile? What countries border Argentina (*ar'-gen-tee'-na*)? Locate Mt. Aconcagua.

What is the southern portion of Argentina called? What cape is the southernmost point?

Where is Tierra del Fuego (*te-er'-rah del fway'-go*)? What form of land is it? What strait separates it from Patagonia? *The strait was named after Magellan, whose ship was the first that sailed round the world.*

Of what river is the Paraguay a tributary? Into what does the Parana flow? Where is Uruguay (*oo'-roo-gway*)?

What three rivers separate Paraguay from Argentina? Which are the two smallest countries of South America? In what direction would you sail from Valparaiso to Panama? From Rio de Janeiro to the mouth of the Amazon? On what waters would you sail in going from Rio de Janeiro to Valparaiso?

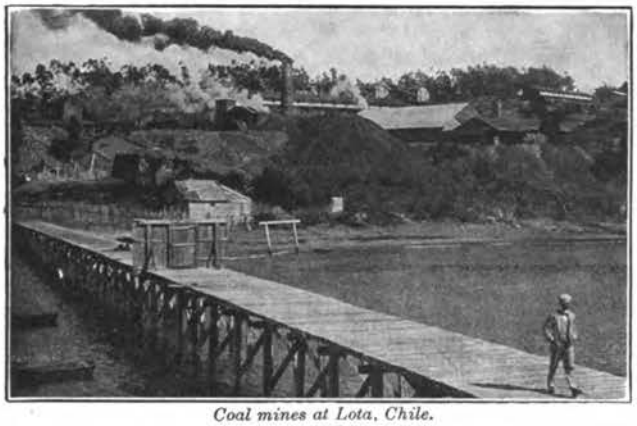
How might you go all the way by water from Maracaibo to Guayaquil? By what shorter way could you go? Use the scale and tell about how many miles would be saved.

Longitude West from Greenwich
80
70
60
50
40
CARIBBEAN SEA
NORTH AMERICA
Cape Gallinas
Maracaibo
Lake Maracaibo
CARACAS
TRINIDAD ISLAND
Colon
ISTHMUS OF PANAMA
G. of Darien
Panama
Bay of Panama
Magdalena
Orinoco River
VENEZUELA
GEORGETOWN
PARAMARIBO
CAYENNE
BRITISH GUIANA
DUTCH GUIANA
FRENCH GUIANA
PARIME MOUNTAINS
COLOMBIA
BOGOTA
ACARAY MTS.
Mouths of the Amazon River
EQUATOR
Rio Negro
MARAJO ISLAND
Para
Manaos
Amazon River
Chimborazo (Vol.)
QUITO
Cotopaxi (Vol.)
Napo R.
Guayaquil
Gulf of Guayaquil
ECUADOR
Nauta
Cape Blanco
Ucayali River
Purus River
Madeira River
Tocantins River
Tapajos River
Xingu River
BRAZIL
Cape St. Roque
Pernambuco
PERU
LIMA
Callao
Cuzco
Lake Titicaca
Cuyaba
Bahia
San Francisco River
SERRA DO ESPINHAÇO
BOLIVIA
La Paz
Potosi
SUCRE
Pilcomayo River
Cobija
TROPIC OF CAPRICORN
San Pablo
ORGAN MOUNTAINS
Cape Frio
RIO DE JANEIRO
Santos
Salado River
ASUNCION
Paraguay River
Parana River
Uruguay River
CHILE
ARGENTINA
Mt. Aconcagua
Valparaiso
SANTIAGO
JUAN FERNANDEZ ISLANDS
Cordova
Rosario
BUENOS AIRES
URUGUAY
MONTEVIDEO
Rio de La Plata
Rio Negro
CHILOE ISLAND
PATAGONIA
Gulf of St. George
FALKLAND ISLANDS
Strait of Magellan
TIERRA DEL FUEGO
Cape Horn
SOUTH AMERICA
SCALE OF MILES
0 100 500 1000
100,000 SQUARE MILES
23 Longitude 13 West 3 0 7 17 Longitude 27 East from 37 Washington 47 57

LESSON XLIX.

1. Minerals.—The mines of South America are among the richest in the world.

Diamonds and various other precious stones are found in Brazil. Many of the purest emeralds in the world come from Colombia. Great quantities of nitrate of soda are obtained in Chile.



Coal mines at Lota, Chile.

Diamond mining in Brazil. The diamonds are found in the gravel at the bottom of streams.

Silver is so abundant among the Andes that in early times the Indians often had dishes made of it. The silver mines of Peru and Bolivia have been worked for hundreds of years and are still productive.

The copper mines of Chile are very rich.

2. Animals.—The forests swarm with animals.

STUDIES ON THE RELIEF MAP.

Outline.—Look at the map on page 17 and tell in which heat belts South America lies. What line crosses the northern part? Trace the long neck of land which joins South America to North America. What is its name? Does it run north and south or east and west?

With your finger trace the western coast of South America. Do you find many arms of the ocean forming gulfs and bays? A coast that has few inlets from the ocean we call a *regular* coast. Now trace in the same way the northeastern and southwestern coasts. A part of these coasts has many inlets, hence we call it an *irregular* coast line. Is the western coast line of South America like the western coast line of North America? Are the eastern coast lines of these continents alike or different?

Mountains and Plains.—Put your finger on the eastern extremity of South America and move it directly west. First you pass over several ranges of mountains. What is their name? Which way do they run? Next you come to a dark green portion of the map. This is a part of the Great Central plain. Which way do the rivers run at this point? Into what do they flow? Next you come to a high range of mountains and then to a second and a third range. Westward of these mountains you find a narrow strip of land along the coast. This is colored a light green. This color means that the land is higher than the dark green plain east of the mountains. From the point where you cross the mountains trace southward to the end of the continent and northward to the Caribbean sea. What name is given to this long range of mountains? In what part of it do you find two ranges? Three? What countries occupy these sections? Find the Orinoco river. Trace southward to the Amazon. What name is given to the mountains between these two rivers?

Rivers.—Place your finger on the mouth of the Amazon. Trace this river westward until you come to the Andes mountains. Then southward between the two ranges until you find its source. In which direction does the Amazon flow? How can you tell this? In the same way trace the Orinoco river to its source. In what mountains does it rise? Notice that it is connected by a small stream with the Rio Negro. When the water is high, boats can go from the Orinoco to the Amazon. Now find the mouth of the La Plata river. This is a short, wide river formed by two other rivers. What are their names? The longer one is the Paraguay. Trace it northward. In what country does it rise? Notice that its source is only a few miles distant from the source of another river flowing into the Amazon.

Trace two rivers that flow into the Paraguay from the west. In what mountains do they have their sources? Find a large river flowing into the Paraguay from the east. Trace it northward until you find its source. Among what mountains is it? Near this place you find the sources of other rivers which flow northward. One of them is called the San Francisco river. Into what water does it flow? Others flow into the Atlantic ocean near the mouth of the Amazon. What are their names? The gray colored part where these rivers rise is called a watershed. A watershed is like the ridge of a roof. It is the highest part and makes the water flow in different directions. Can you find a watershed between the Amazon and the Orinoco rivers? Find other watersheds among the mountains of Brazil and in the Andes. Every mountain range is really a watershed, since it makes the water flow in different directions. Sometimes two streams that flow through different valleys join and make one large stream. Find such cases on the map.

These studies can be carried further, if desired, in the same manner as those on North America, p. 34.

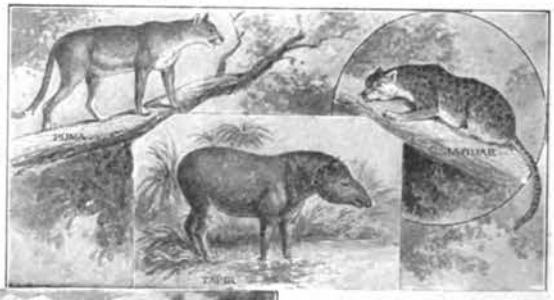
Use this map as suggested in the studies on the opposite page.

The tapir, which resembles a monstrous pig, is the largest. The puma, the jag'-u-ar, and the tiger-cat are the most ferocious. Like the lion, they belong to the cat family.

Armadillos, wild dogs, deer, sloths, ant-eaters, and opossums abound. The tree tops are alive with gayly-feathered birds, and noisy with screaming parrots and chattering monkeys.

Through the dense shade you hear the curious notes of the campanéro (*cam-pa-nay'-ro*) or tolling-bell bird, sounding like the strokes of a hammer on an anvil.

Sailors, on the waters of the Amazon, often surprise the alligator sunning himself on the banks, and perhaps see also the boa-constrictor, thirty or forty feet long, coiled around the body of some unfortunate animal and crushing it to death.



Peruvian gentleman and some South American animals.

The scarlet flamingo, the heron, and spoonbill dart their beaks into the water to catch their prey. Humming-birds, dressed in every color of the rainbow, flit through the air.

Ascending the Andes one may find other strange animals. In the high cold plains near the line of perpetual snow is the home of the **llama** (*lah'-mah*), often called the American camel. The natives tame it and use it as a beast of burden.

The hair of the **alpaca** is used in making a kind of cloth also called alpaca. The flesh is used for food.

The condor, a bird of prey larger than an eagle, lives among the peaks of the Andes. The rhea, or South American ostrich, roams in flocks over the hot pampas of the La Plata.

3. Occupations.—The leading occupations are agriculture, cattle raising, and mining.

Brazil, Argentina, and Chile are the chief agricultural regions. The Llanos of Venezuela and the Pampas of Argentina and Uruguay are the great cattle-raising districts.

HOMES AND PEOPLE.

In the first picture on the opposite page we have a city home in South America. The people of warm countries are fond of living out of doors, and so the lawns are often more attractive than the inside of the house. They are made beautiful with vines, flowers, and shade trees. The family spend the hot part of the day among these cool and pleasant surroundings. Notice that there are no chimneys on any of the houses in the pictures and that the roofs are made of tiles baked from red clay. In what part of South America do you think it would be too warm for fires? Point out these regions on the relief map.

The country home on the left-hand side of the page is like the city home in some ways. It is more rudely built and has no windows. How does the lawn differ from the first one? The Indian boy at the top of the page has a heavy bundle strapped to his back. He looks like a pack-peddler; indeed, he is one. Such peddlers are as common in South America as horses and wagons are in our country. Bread, milk, fruit, water, poultry, meat, and every sort of merchandise are carried about on the backs of men, women, and donkeys to be sold. A traveler in South America has his trunk carried on the back of an Indian. The mothers carry their babies on their backs and other things on their heads at the same time.

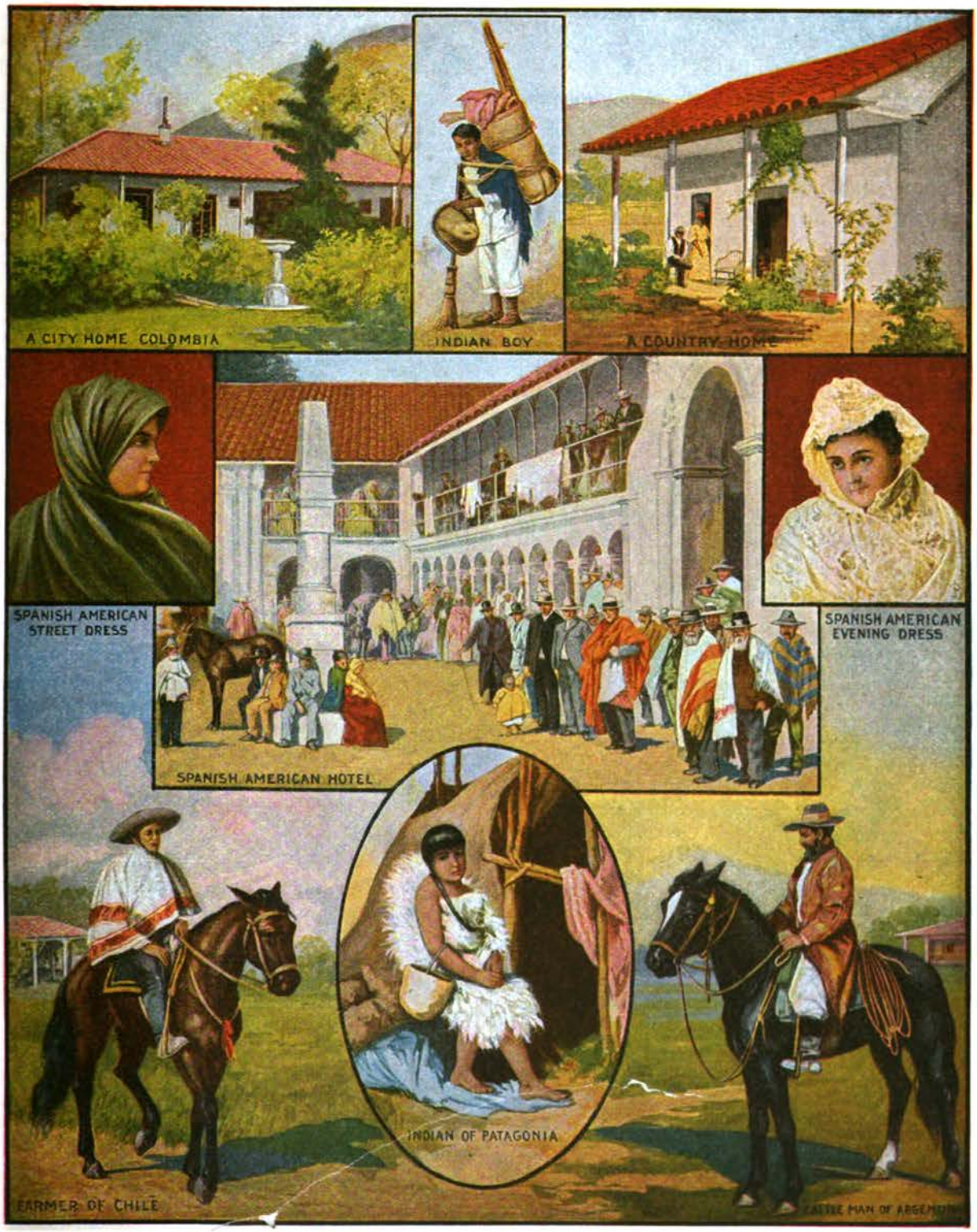
In the center of the page is a view of a courtyard of a Spanish-American hotel at La Paz. Notice that all the buildings are low, being only one or two stories in height. What reason can you give for this?

In South American countries a light shawl, or mantilla, is often used to cover the head and shoulders. The two ladies shown in the picture are dressed in this way.

In the lower left-hand corner of the picture is a farmer on horseback. In what part of South America does he live? His farm is no doubt a very large one, and he has to ride over it to oversee his work. The blanket that he wears about his shoulders is called a *poncho*. The poncho is merely a square piece of cloth with a hole in the middle, through which the head is thrust. It then falls loosely about the shoulders.

The cattle man in the opposite corner reminds us of the cow-boy that we read about on page 36. He is dressed a little differently, but he has a lasso hung on his saddle. He does not have so much use for it as the cow-boy, because in Argentina the cattle are kept in large fields fenced with wire. The wire is bought in the United States.

Between the farmer and the cattle man is a picture of an Indian woman. In what part of South America does she live? How is she dressed? How is the tent made in which she lives? The Indians of this part of South America are very brave and warlike and fought for many years against the Spanish settlers who came to live in their country.



Homes and People of South America. Study these pictures in connection with the descriptions and questions on the opposite page.

Mining is carried on in Colombia, Chile, Ecuador, Peru, Bolivia, Brazil, and Venezuela.

The **commerce** of South America is important. Coffee, rubber, hides, mate, cotton and sugar are exported from Brazil; sugar, silver, copper and gums from Peru; and nitrate and copper from Chile. Venezuela, Argentina, and Uruguay export cattle products; Chile and Argentina, wheat and wool. The imports are manufactured articles, particularly flour.

For Recitation.—What are the chief mineral products of South America? Name some of the animals found in the lowland forests. Name some of the animals found among the mountains. What are the chief exports of South America?

A pack-mule train at a halting-place in Brazil.

LESSON L.

1. The inhabitants of South America are native Indians and descendants of Spanish and Portuguese settlers.

The Indians are usually ignorant and degraded. Yet those who live among the Andes are very ingenious. They make bridges of rope to cross the deep gorges among the mountains.

Native Indians and their homes in Bolivia.

A feast day, or holiday, in a village in Brazil.

On the Pampas and Llanos we find half-wild people, whose occupation is to take care of the cattle that feed on the plains.

The people of Patagonia are very tall and noted for their bravery.

The language of South America, like that of Mexico and Central America, is Spanish. In Brazil, Portuguese is the chief language.

2. Government.—The countries of South America are all republics, except the three colonies of Guiana (*ghe-ah'-nah*), which belong to England, France, and the Netherlands.

Brazil is the largest and most powerful country of South America. It was first a colony of Portugal, then an empire. In 1889 it became a republic, with a government like ours.

3. Early History.—In 1500, Cabral, a Portuguese, discovered Brazil, and so, until 1822, Brazil belonged to Portugal.

In 1532, Pizarro, a Spaniard, went with a fleet to Peru. It was a splendid empire. The kings were called Incas. They ate and drank from vessels of silver and gold. The one then on the throne was named Atahualpa (*at-a-hwhal'-pah*).

Pizarro and his men took Atahualpa prisoner. The Inca promised to fill his prison with gold as high up as he could reach if Pizarro would let him go. Pizarro took the gold, but cruelly put Atahualpa to death. Thus Peru became a possession of Spain. All the South

American countries except Brazil and Guiana once belonged to Spain.

4. Cities. — Many of the houses in South America are built of sun-dried brick, painted with

A village inn.

gay colors, such as pink or yellow, and roofed with scarlet tiles.

In some of the cities **earthquakes** often occur, and the dwellings are built only one story high, so they will not be shaken down. With us every house must have one chimney, and many have more than one. In the northern part of South America few houses have any, as fires are not needed.

Caracas.—The city is only six miles from the coast, but on a plateau about 3,000 feet above it.

Rio de Janeiro, or **Rio,** the capital of Brazil, is the chief commercial city. Its bay, dotted with many islands, is very beautiful.

Santos and **Rio** are the greatest coffee markets in the world.

Most of the coffee is carried by negroes. Long lines of them may be seen trotting through the streets, each with a great sack of coffee on his head.

Para (*pa-rah'*) is the great India rubber port. **Bahia** (*bah-ee'-ah*) exports coffee and cocoa. **Pernambuco** is noted for the export of sugar and cotton. **Maracaibo** (*ma-ra-ki'-bo*) has given its name to the coffee grown in Colombia and Venezuela. **Buenos Aires** and **Montevideo** are the great cattle ports.

Santiago, Valparaiso (*val-pah-ri'-so*), and **Lima** are important commercial cities on the Pacific coast.

For Recitation. —Who live in South America? What forms of government have its countries? What have you learned of Rio de Janeiro? Of other cities?

A street in Santiago, Chile.

REVIEW OF SOUTH AMERICA.

Countries.—*In what part of the continent is it? Name the capital.*—COLOMBIA. VENEZUELA. GUIANA. ECUADOR. PERU. BRAZIL. BOLIVIA. CHILE. ARGENTINA. PARAGUAY. URUGUAY.

Islands.—*Near what part of the coast?*—TRINIDAD. TIERRA DEL FUEGO. FALKLAND.

Capes.—*On what part of the coast?*—GALLINAS. HORN. ST. ROQUE. BLANCO.

Mountains.—*Where are they? In what direction do the ranges extend?*—ANDES. ORGAN. COTOPAXI. ACONCAGUA.

Gulf and Sea.—*Where is it?*—GULF OF DARIEN. GULF OF GUAYAQUIL. CARIBBEAN SEA.

Strait.—*Connects what waters? Separates what lands?*—MAGELLAN.

Rivers.—*Where does it rise? Into what does it flow?*—AMAZON. ORINOCO. RIO DE LA PLATA. MADEIRA. PURUS. TOCANTINS. PARANA. PARAGUAY.

Lakes.—*Where is each?*—TITICACA. MARACAIBO.

Cities.—*In what country? On or near what water?*—PARA. BAHIA. MARACAIBO. ROSARIO. SUCRÉ. CALLAO. CORDOVA. VALPARAISO.

EUROPE.

LESSON LI.

1. Europe.—Columbus sailed westward and found the New World; let us sail eastward and visit the Old World. Europe shall be our first landing-place. It is only a little larger than the

The Monastery of St. Bernard.

United States, and so is one of the smallest of the continents.

Still it has a far larger population than any other continent except Asia. It is very much more thickly settled than the United States, and thousands of people come every year from its crowded countries to find new homes with us.

2. Seas, Bays and Gulfs.—The first thing that attracts the eye of a sailor as his vessel approaches the land, is the coast. That of Europe is remarkably well provided with safe harbors. Look at the map. See how jagged, or as we say indented, the coast line is. Everywhere we find seas, bays and gulfs.

It is no wonder that Europe, having so many harbors, sends out more ships and has more commerce than any other part of the world.

Central plateau, Germany.—The falls of the Rhine, St. Goar.

Southern mountains.—The Alps, Switzerland. Notice great glacier.

3. The Surface of Europe may be divided into two parts, the one a vast plain in the northeast; the other a mountainous region in the southwest.

4. Mountains.—The Alps are the most celebrated mountains of Europe. Their loftiest peaks are always covered with snow. Many of the high valleys are filled with the wonderful ice-streams called **glaciers.** There are as many as four hundred. Some of them are twenty miles long and three miles broad.

Sometimes **avalanches,** or large masses of snow, break loose and slide down the mountain side with a

Northern coastal plain, Netherlands. Notice flat country, canal, windmills.

terrific crash. Villages have been buried by them, and people crushed to death.

There are many natural roads, or **passes,** across the Alps. On one of them is the Monastery of St. Bernard. Here, amid everlasting winter, live some pious monks. They have taught the celebrated dogs of St. Bernard to hunt for persons who have lost their way in the snow. These animals are sent out during snowstorms, with

baskets of food and wine tied round their necks, to relieve travelers who are perishing in the bitter cold. Several tunnels have been cut through the Alps.

5. The Rivers of Europe are not so large as some of those in North and South America.

The Volga is the longest. It is noted for its fisheries. The Danube is navigable for the greatest distance. Thousands of vessels ply on its waters. The Rhine is the most famous for its scenery, its castled crags, and vine-clad banks.

6. Climate.—The most northern part of Europe lies near the North pole, and, like Alaska and Greenland, is very cold. But most of Europe is in the Temperate zone, and has a mild climate.

A branch of the olive tree with ripe fruit.

An old olive tree.

In the most southerly parts people do not even build chimneys to their houses, because it is rarely cold enough for fires. The climate is like that of Florida.

There is something very curious that we must notice about the climate of western Europe. There the winters are much warmer than they are on the opposite side of the ocean in North America. This is owing to the westerly sea-winds, which, blowing over the warm waters of the Atlantic ocean, carry warmth and moisture to the land. Hence, the winters are far milder than ours.

London is several hundred miles farther north than Quebec, in Canada. At Quebec there is sleighing for half the year; in London a sleigh-bell is never heard.

7. The productions of northern Europe are like those of the cold countries of North America. On the shores of the Arctic ocean, vegetation is scanty and trees are stunted.

Silkworm, cocoon and moth. (Half their natural size.)

In the **middle portion** of the continent we find a rich agricultural region, like our great Mississippi valley. Wheat and rye are raised in immense quantities. Hemp is grown to make rope for Europe's fleets of ships, flax for the manufacture of linen, and beets for the making of sugar. The warm hillsides are covered with vines, and the best of wine is made.

Southern Europe is one of the greatest fruit-growing regions in the world. Grapes, oranges, lemons, figs, and olives grow in rich profusion. Vast fields are covered with mulberry-trees, on the leaves of which the silkworm is fed.

The **silkworm** spins about himself a little house of yellow silk, called a cocoon, to sleep in while he is a chrysalis. This silk house is like a little egg, about an inch long. When the chrysalis is ready to use his wings and live as a moth, he bursts through the silken walls of his house and flies out. But this, of course, breaks the silk all to pieces.

So the silk-grower puts the cocoon into hot water, kills the chrysalis, and saves the silk.

A pile of silk cocoons.

For Recitation.—How does Europe compare with the other continents in size and population? What is remarkable about the coast of Europe? Describe the surface of Europe. Which are the most celebrated mountains of Europe, and for what are they noted? What are the chief rivers of Europe? How does the climate of Europe compare with that of North America? What are the chief products of northern Europe? Of middle Europe? Of southern Europe? What can you tell about the silkworm?

EUROPE
SCALE OF MILES
0 100 300 500
100,000 SQUARE MILES
Longitude 10 West 0 East 10 from 20 Greenwich
Longitude East from Washington
ARCTIC OCEAN
ATLANTIC OCEAN
BRITISH ISLES
NORTH SEA
BALTIC SEA
BAY OF BISCAY
MEDITERRANEAN SEA
BLACK SEA
CASPIAN SEA
ICELAND
Mt.Hecla
ARCTIC CIRCLE
North Cape
LAPLAND
SWEDEN
NORWAY
FINLAND
White Sea
Archangel
Onega Lake
Ladoga Lake
ST.PETERSBURG
Gulf of Finland
Gulf of Bothnia
Gulf of Riga
Skager Rack
CHRISTIANIA
STOCKHOLM
COPENHAGEN
Moscow
Volga River
Nizhni Novgorod
Ural River
URAL MOUNTAINS
RUSSIA
IRELAND
Dublin
Liverpool
LONDON
St.George's Channel
English Channel
Straits of Dover
Hamburg
BERLIN
GERMAN EMPIRE
Dresden
Warsow
PARIS
Munich
VIENNA
AUSTRIA
Budapest
HUNGARY
Odessa
Sea of Azof
CRIMEA
CAUCASUS MOUNTAINS
C.Finisterre
Lyons
Venice
Trieste
BELGRADE
SERVIA
BUKHAREST
BULGARIA
TURKEY
CONSTANTINOPLE
Sea of Marmora
LISBON
PORTUGAL
MADRID
SPAIN
Cape St.Vincent
Strait of Gibraltar
Marseilles
CORSICA
SARDINIA
Florence
ROME
Naples
Mt.Vesuvius
BALEARIC ISLES
ADRIATIC SEA
Mt.Etna
SICILY
Strait of Messina
MALTA
C.Matapan
CRETE
GREECE
CYPRUS
ARCHIPELAGO
AFRICA

MAP STUDIES.

Of what countries are the following cities the *Capitals*?

London,	Paris,
Berlin,	St. Petersburg,
Vienna,	Rome,
Madrid,	Lisbon,
Constantinople,	Brussels,
The Hague (*haig*),	Copenhagen,
Athens,	Berne,
Bukharest (see map),	Belgrade.

What ocean is north of Europe? What ocean is west? What sea, river, and mountains form the eastern boundary? What sea is on the south?

What countries in Europe border on the Mediterranean sea? Which border on the Atlantic ocean? Which border on the Baltic sea? Which have no seacoast?

What part of Europe is nearest to Africa? In what direction is Europe from Africa?

What two countries in the northwest of Europe together form a peninsula? What sea and gulf are east of Sweden?

Through what strait can vessels sail in going from the North sea into the Baltic? *Rack means strait.*

Where is North cape? What mountains are in Norway? What islands are off the west coast? *These islands are noted for their fisheries.*

Which is the largest country of Europe? What mountains are on the northeast border of Russia? What mountains are on the south? What seas are on the south? What sea on the coast of Russia is a part of the Arctic ocean?

What large river flows into the Caspian sea? What river flows into the Sea of Azof? What large river flows into the Black sea? (Pronounced *nee'-per.*)

In what general direction do all these rivers flow? What river flows into the White sea? In what direction? In what part of the country is St. Petersburg? Moscow? Odessa? Archangel? On what river is Nizhni Novgorod (*nizh'-ne nov'-go-rod*)?

In what direction would you go from St. Petersburg to Berlin? On what waters would you sail in going from Odessa to Vienna? Odessa to England?

Where is Denmark? What seas and strait nearly surround it? What Danish island is the nearest part of North America to Europe? *Copenhagen is on two islands.*

What country is south of Denmark? What country bounds the German Empire on the east? What two countries bound it on the south? What countries bound it on the west?

On what two seas does Germany border? What rivers cross it? Into what seas do they flow? On what river is the chief seaport?

Where are the Netherlands and Belgium? What country is south of England? What bay is west of France? What strait separates France from England? What sea is south of France?

On what river is Paris? What important seaport on the Mediterranean? (Pronounced *mar-saylz'.*) *Corsica, an island that belongs to France, in the Mediterranean, was the birthplace of Napoleon the Great.*

What little country is south of Germany? What celebrated mountains are in Switzerland?

If you go eastward out of Switzerland, what country do you enter? On what sea does it border? What port has Austria on the sea? (Pronounced *tre-est'.*)

What two large countries border Austria on the north? What mountains are in the east?

What great river crosses the country? Into what sea does it flow? What capital is on the Danube?

What three little countries border on the Danube? Where is Montenegro?

What mountains separate Bulgaria from Turkey? What sea is on the east of Turkey? What sea is on the west?

Where is the Sea of Marmora? In what direction is St. Petersburg from Constantinople?

Use the scale of miles and measure the distance between them. What country is south of Turkey?

Archipelago is the name given to the sea east of Greece. It is dotted with islands.

What large island is south of the Archipeloga? Where are the Ionian islands?

What country is west of the Adriatic sea? What natural division of land is Italy? What is its shape? What two large islands belong to Italy?

What mountains are in Italy? What river is in the north? Where are the volcanoes Mt. Vesuvius and Mt. Etna? What strait is between Sicily and Italy? Where is Venice? Naples?

In what direction is Berlin from Rome? Rome from Paris? Use scale and tell how far apart these cities are.

What two countries in the southwest of Europe form a peninsula? What mountains separate Spain from France? What ocean is west of the peninsula?

What sea is east? What strait unites these waters? What bay is north of Spain?

What two capes are on the coast? In what part of the country is Madrid?

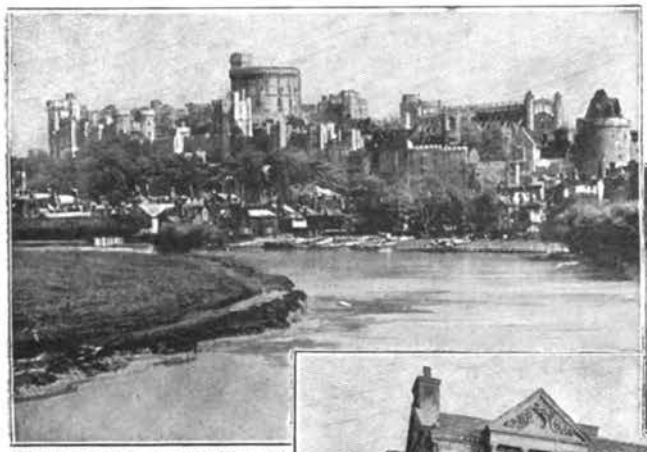
Map Drawing.—The easiest portion of Europe to draw is the peninsula of Spain and Portugal. Have the pupils draw this. Name the bounding waters and the rivers, and locate the capitals.

On an outline map of Europe, write in the names of the surrounding waters, the seas, gulfs, bays, and straits. Next the names of mountains, rivers, lakes, and countries may be neatly printed in. Capital cities may be properly represented. Several lessons may be profitably given to the development of such a map.

THE BRITISH ISLES.

LESSON LII.

1. The British Isles are also called the United Kingdom of Great Britain and Ireland. They



Windsor Castle, the residence of the King of England.

consist of two large islands, Great Britain and Ireland, and a number of smaller ones.

Great Britain contains England, Scotland, and Wales. It is only a little larger than the state of Kansas, yet the king of this island rules one-fourth of all the land, and more than one-fourth of all the people, of the world. His subjects are found on every continent, and the sun is always shining on the British flag.

Great Britain is noted as a manufacturing country. She owns more ships, and carries on more commerce, than any other nation.

Her trade with the United States is immense. She buys our grain, pork, and beef to feed her crowded millions; and we buy her manufactured goods. She is our best customer.

England is dotted with cities and towns.

London is the largest and richest city in the world, and the first in commercial importance. It is the capital of the British empire, which includes lands and people in every part of the world. It is on both sides of the river Thames (*temz*). More people live in London than in the whole state of Ohio.

A residence in London.

Liverpool is one of the great commercial cities of the world. It is famed for its docks. A great part of our cotton, wheat, beef, and pork that go to England is landed there.

Country homes in England.

The reason for this is that Liverpool is the seaport that is nearest to the large cities in the north of England, where there are hundreds of factories to supply with raw cotton and millions of people to supply with food. London and Liverpool together have more than two-thirds of the entire trade of the country.

Leeds is noted for woolens as well as for iron and steel goods.

Birmingham is famed for its coal mines and

London bridge. This is the oldest of the many bridges that cross the Thames and connect the two parts of the city. There are also three tunnels under the river.

iron manufactures; **Sheffield** for cutlery; **Newcastle** is in the coal regions and is noted for shipbuilding and for its coal trade.

Manchester is celebrated for cotton goods.

This city is connected with the river Mersey by a ship canal, so that ocean steamers from America, laden with cotton, grain, and cattle, can unload at her docks.

All the large manufacturing cities of Great Britain are in or near the coal mining regions. Much coal is needed to feed the boilers that make steam to run the machinery. Many of these cities grew up before there were any railroads.

Edinburgh, the old capital of Scotland.

Custom House, Dublin, Ireland.

A group of Welsh ladies.

2. Scotland is a hilly country, noted for the beautiful scenery of its lakes and mountains.

Edinburgh (*ed'-in-bur-ruh*), the ancient capital, is famed for its university. **Glasgow** is the largest city. It is built along the river Clyde, where there are large shipyards. Engines, boilers, and many kinds of machines are made here.

3. Wales is a very mountainous country. It has rich mines of copper, coal, and iron.

4. Ireland, the green or "Emerald Isle," is the home of the Irish people. **Dublin** is its chief city. **Belfast** is noted for the making of linen. Many Irish people have come to our country and are among its most useful and valued citizens.

For Recitation. — Of what do the British Isles consist? What is said of the manufactures and commerce of England? What can you say of London? Name several other important cities. What can you say of Scotland? Name the chief cities of Scotland. What are the chief cities of Ireland?

MAP STUDIES.

What ocean west of the British Isles? What channel and strait between England and France? What sea and channels separate England from Ireland? What hills between England and Scotland?

In what direction is Ireland from England? Scotland from England? Where is Wales? Where are the Hebrides (*heb'-rid-eez*)? The Orkney and Shetland Isles? Where are the Grampian Hills?

The bays on the coast of Scotland are called firths. Name two on the east coast. What is the capital of England? On what river is it? Where is Liverpool? Birmingham? Manchester? Sheffield?

Where is Edinburgh? In what direction is it from London? Where is Glasgow? Dublin? Belfast?

LESSON LIII.

1. Northern Europe.—The cold countries of Europe are Sweden, Norway, and Russia.

2. Sweden and Norway together occupy a peninsula in the northwest of Europe. They used to be both governed by one king, but each now has its own king.

Except in the southern part, Sweden is mostly mountainous and rocky. Its chief wealth is in its mines, forests, and fisheries. Swedish iron is the best in the world. **Stockholm** is the capital of Sweden; **Christiania,** of Norway.

Drying fish on the coast of Norway.

3. Russia (*rush'a*) is the largest country in Europe. It covers more than half the continent.

Sleighing in a Russian village.

It extends from the cold shores of the Arctic ocean to the warm lands on the Black sea. It has, therefore, a great variety of climate.

The southern half is like our prairie region. It is one of the great wheat-growing countries of the world. Immense crops of hemp and flax also are grown, and vast herds of cattle are raised.

The leading exports are grain, hides, and tallow. **Odessa** is the chief grain port.

A great deal of the trade of Russia is carried on at fairs. These are great gatherings of buyers and sellers of all kinds of goods.

The largest fair in all the world is held at **Nizhni Novgorod** (*nizh'ne nov'-go-rod*). Here we may see 5,000

STUDIES ON THE RELIEF MAP.

Highlands and Lowlands.—The surface of Europe, like that of North America and of South America, is composed of several highland regions bordering a Great Central plain. Find the Great Central highland region of Europe. In which directions does it extend? What is it called? Find the sources of four rivers in this region. Trace the one flowing north. The two flowing east. The one flowing south. Find the highland region northeast of the Alps. What is its name? What highland region southeast? What kind of surface have the peninsulas in the south of Europe? Find the highland region separating France and Spain. In what directions does it extend? Trace the highland region extending from the Black to the Caspian sea. What is its name? Trace the dividing highlands between Europe and Asia. These mountains form the natural boundary of the two continents. What is their name? Direction? Trace the highlands in the northwestern part of Europe.

Coast.—Trace the coast line of this section. What can you say of it? Name five of the great inlets on this coast. How does it compare with the southern coast? What other continent has a very irregular coast line?

Now look at the Great Central plain. Find a place in it that seems to be the source of rivers. This high region is in the central part of Russia. Locate this place on the political map a little west of the city of Moscow. Four great rivers rise in this section. Trace these rivers and give their names. Find the body of water into which each one flows. In what parts of the continent do you find a great number of islands? Notice that these sections are mountainous. The islands seem to be the tops of mountains that project above the water. Notice that the mountainous coasts have also the greatest number of good harbors.

Climate.—Trace the part of Europe that is in the cold zone. What part of it is in the Temperate zone? What kind of plants are found in the southern part? (See lesson LI.) Find the portion where the vine grows. Find the grain-raising section. The western coast of Europe has a mild climate. What is the reason for this? The parts bordering on the Mediterranean also are very mild because the mountains shut off the cold winds from the north. The parts of the Great Central plain bordering on the Black sea are not protected in this way, and hence have a very cold climate in winter. Find these portions.

These studies may be continued further at the discretion of the teacher.

Use this map as suggested in the studies on the opposite page.

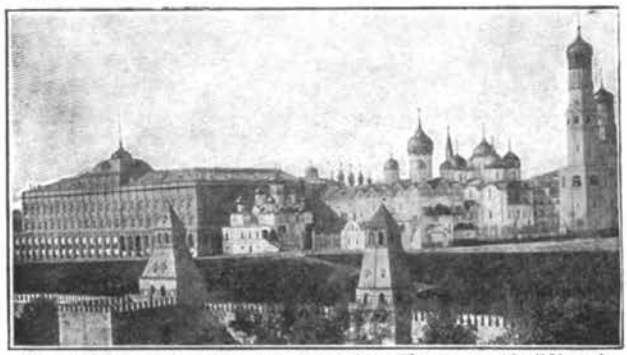
booths full of all sorts of things to be sold, and more than 200,000 people buying and selling as fast as they can.

4. Russia is an empire. The ruler is called the Czar (*zar*).

St. Petersburg, the capital, is his home. It is a city of palaces and fine buildings.

Moscow is a splendid old city, full of churches with gilded domes and spires, from which on holidays the peals of a thousand bells ring forth.

5. Lapland is a cold, desolate region bordering on the Arctic ocean. It is the home of the Lapps, a people like our Eskimos.



View in Moscow, the old capital of Russia. The group of buildings is called the "Kremlin," a word meaning fort or citadel. It contains the royal palaces, cathedrals, churches, and an arsenal.

The warm weather in Lapland lasts for only two months in the year. The long winters are made a little

Lapps and their homes. The tents are made of reindeer hides stretched on poles.

more cheerful by the aurora, which often fills the sky with long, waving streamers of white, green, and crimson light.

The Lapps make much use of the **reindeer.** This animal supplies them with milk and cheese. It will pull a sleigh a hundred miles a day. Its flesh is the only meat of the Laplanders. Its skin is made into coats, caps, and boots.

For Recitation.—What countries are in Northern Europe? What can you say of Sweden and Norway? What are the chief occupations in Sweden and Norway? What can you say of the size of Russia? What are the great productions of Russia? In what way is the commerce of Russia largely carried on? What are the chief cities of Russia? What do you know of Lapland?

HOMES AND PEOPLE.

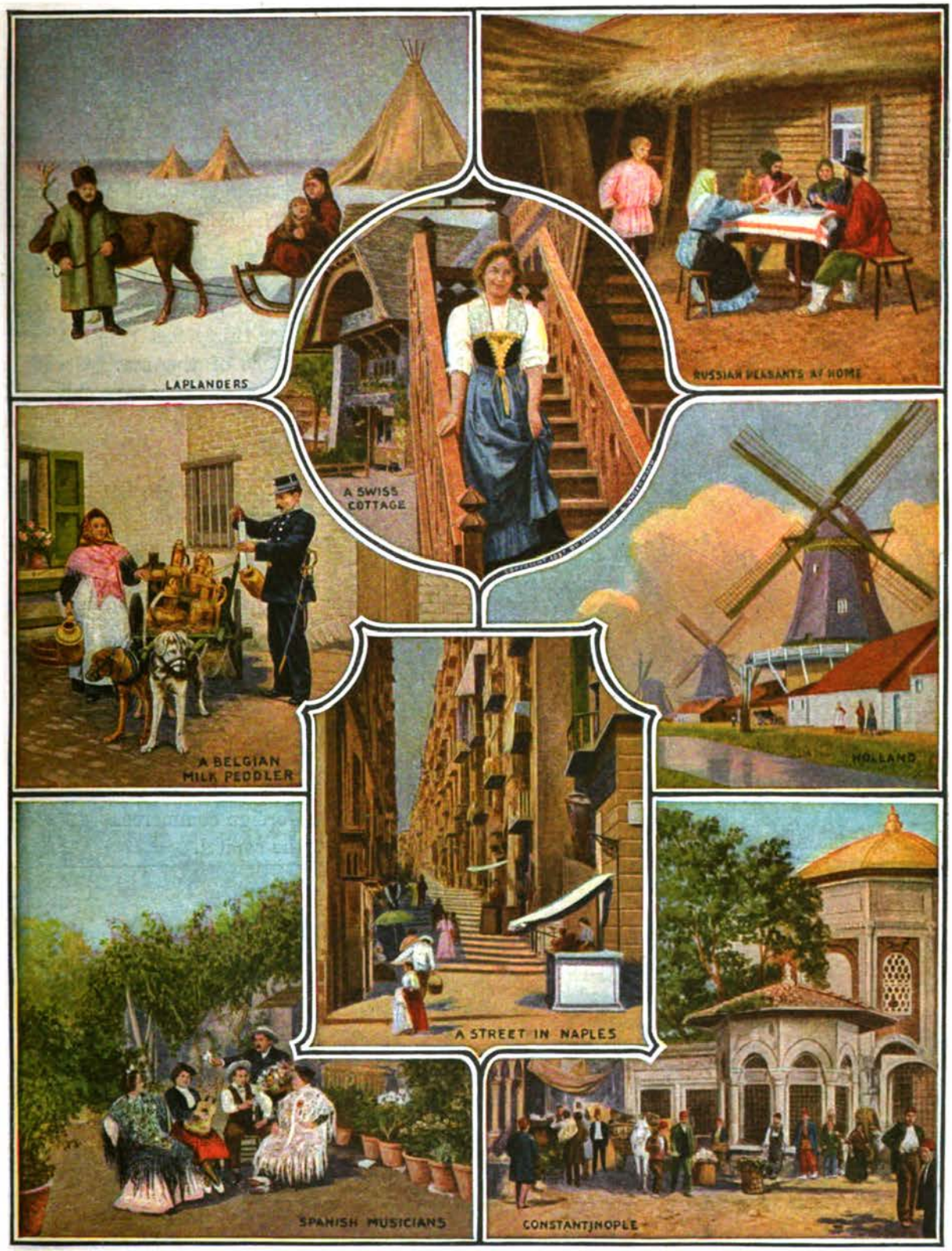
At the top of the opposite page are pictures of people who live in the northern part of Europe. Find the country of the Laplanders on the relief map. Like the Eskimos, they belong to the Yellow race. Their houses are made of stones and earth and sometimes of skins stretched upon poles. You may see one of these huts in the picture. Their chief wealth is the reindeer, and nearly every Lapp has a herd of his own. The people live on reindeer meat and milk, and their clothing is made of reindeer hides. You see that the reindeer is harnessed to a kind of sled. He is a very swift animal and the Laplanders make long journeys in reindeer sledges.

The girl that you see in the second picture lives in a cottage in one of the high valleys of Switzerland. Notice how the cottages are built with a protected veranda on each floor. The staircase leads to one of these outside porches. The view in the upper right-hand corner shows some Russian peasants taking tea outside of their house on an afternoon in summer. On the table is the large samovar, or urn, from which the tea is poured. The Russians are great tea-drinkers and buy more tea in China than any other nation.

The next picture shows a girl peddling milk in a town in Belgium. In that country dogs are more commonly used than horses to draw light loads. The officer is testing the milk to see whether it is pure. What country has many canals and windmills? Can you tell what each is used for? The windmills furnish power to grind grain as well as to keep the country drained by pumping the water out of the canals.

In the lower part of the picture is a party of Spanish musicians in a garden. These people are very fond of music and dancing, and the most of the houses are built with a little court, or enclosed lawn, where they can be cool and comfortable during the hot afternoons of summer. The long and narrow street is in Italy in the city of Naples. Do you think that there are any street cars or wagons passing through this street? Notice the tall houses with overhanging balconies and windows. Each one of these houses contains homes for very many families.

The last picture shows a street in Constantinople. What can you tell about the situation of this city? Most of the shops or bazaars of Constantinople are in the street. Fruits and vegetables are brought into the city in great baskets slung in pairs across the backs of donkeys. They are then peddled through the streets or placed on stands to be sold. On the left of the picture you can see a street. How very narrow it is. Hardly wide enough for the people; of course there is no room for wagons, but the little donkey can easily go through with his load. The windows of the living rooms of the house are covered with a close latticework so that no one can see through them from the outside.



Homes and People of Europe. Study these pictures in connection with the descriptions and questions on the opposite page.

LESSON LIV.

1. In Central Europe we find the German empire, the Netherlands (also called Holland), Denmark, Belgium, France, Austria, and Switzerland.

A dog team in Brussels.

2. The German Empire contains twenty-six different states, of which Prussia is the most important. They are united under one government, and are often called Germany.

The country is rich in minerals of many kinds. A curious product is **amber**, which is gathered on the shores of the Baltic sea.

Grain is raised in large quantities. Rye is the grain most grown. Many cattle, sheep, and hogs are raised.

The valleys of the Rhine and other rivers are

Homes in Nuremberg, Germany.

famed for their **grapes.** The slopes of these valleys are covered with vines, each fastened to a stake, to support its clusters of fruit. It is a merry time in the vineyards when the ripe grapes are gathered. The **wines** are celebrated.

In the summer vast fields are to be seen blue with the flower of the **flax,** and Germany is one of the great linen-making countries of the world. The **sugar-beet** is widely grown, and a large quantity of sugar is made. From the sheep of Germany the finest **wool** is obtained.

Many of the **toys** that Santa Claus brings at Christmas are made in this country. In some of the cities hundreds of the people are employed in making them.

No people in Europe are better educated than the Germans. They are great lovers of music.

Berlin, the capital, is one of the finest cities on the continent. **Hamburg** is one of the great commercial cities of the world.

3. The Netherlands.—We come now to one of the strangest of all countries, the Netherlands or Holland.

The name means low countries, and low they are. In some places the land is twenty or thirty feet below the surface of the sea. Great embankments of earth, called **dykes,** have been built to keep out the water. They are like our Mississippi levees.

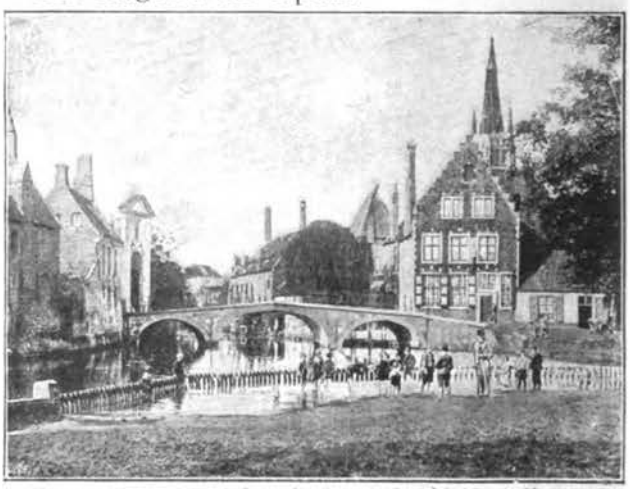
We see the great white sails of windmills all over the country. What does it mean? Some of these mills are grinding wheat, but most of them are pumping the Netherlands dry.

In this watery land there are a great many **canals.** They cross the country in every direction and serve instead of roads.

In winter they are frozen over, and all the people go about on skates and sleds. The women often skate several miles to market, with baskets of eggs on their heads.

The **Dutch** (as the people of the Netherlands are called) are great cattle-raisers, sailors, and fishermen. They are a most enterprising people, and have a large foreign commerce.

The Hague is the capital.



View in the city of Rotterdam, showing canal and bridge. Notice the steep roofs and high gables of the houses.

4. Denmark, like the Netherlands, is occupied in the cultivation of the soil, in cattle raising, and in making butter and cheese. These last, with grain, are largely exported.

Many of the people are engaged in fishing.

Copenhagen, the capital, is a handsome city.

5. Belgium is one of the smallest countries in Europe, but it is the most thickly peopled of the European countries.

The people are as busy as bees, and they cultivate their farms as carefully as gardens, and are very skillful manufacturers. They have some of the greatest iron works in the world. Many of the women are lace-makers. Some of the lace that they make is worth as much as $250 a yard.

A chateau, the country home of a nobleman in France, and a residence street in Paris, showing apartments, or "flats," in which most of the people of Paris live.

Brussels is the capital. It is a gay city, and for this reason is sometimes called Little Paris.

6. France is a beautiful country. The people are remarkably industrious and economical. Like the Belgians, they are busy farmers and manufacturers.

A vineyard scene in France.

Northern France produces grain and root crops. Immense quantities of beets are grown for making sugar.

Middle France is a great vineyard.

It is interesting to be there in the merry season when the **grapes** are gathered. The ripe clusters are picked by men, women, and children, and carted to great vats, where the juice is pressed out and allowed to stand until it ferments and becomes wine. The **wines** of France are sold all over the world and yield a very large amount of money.

In **Southern France**, which borders on the warm Mediterranean, we find many of the people occupied in raising silk-worms, and making olive oil, or pickling olives for export.

The chief manufactures of France are silk goods. The silk factories of **Lyons** are the most important in the world. They employ one hundred thousand persons.

France is a republic. **Paris**, the capital, is the most splendid city of Europe.

It is noted for the manufacture of articles requiring taste and delicate workmanship. Its porcelain, jewelry, instruments, and kid gloves are famous.

Marseilles has a larger commerce than any other port of France.

7. Austria-Hungary is one of the empires of

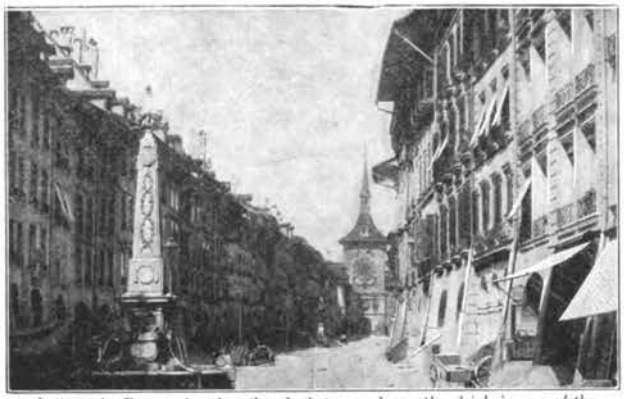
Vienna, the capital of Austria.

Europe. It contains the two states, Austria and Hungary, under one emperor.

Austria-Hungary is one of the richest mineral regions of the continent. Its **salt mines** are the largest in the world.

The chief **agricultural products** are wine, grain, hemp, and flax. Hungary is noted for its wines.

The most important manufactures are linen goods and colored glass.



A street in Berne showing the clock-tower, beneath which is one of the gates to the city.

Vienna, the capital of the empire, and **Budapest,** the capital of Hungary, are the largest cities.

8. Switzerland.—This little republic is nestled among the Alps. It is famous for its grand mountain peaks and beautiful lakes. So many people go there every year to enjoy the scenery that it is called the playground of Europe.

Most of the Swiss are occupied in the care of sheep and cattle. They are also celebrated for the manufacture of **watches** and **cotton goods**.

Berne is the capital.

For Recitation.—What countries are in Central Europe? Name the chief products of Germany. For what are the Germans noted? What is remarkable about a large part of the surface of the Netherlands? What are the chief occupations in the Netherlands? What are the chief occupations in Denmark? For what is Belgium noted? What are the chief occupations in France? What are the chief products

Thun, a picturesque town among the Alps in Switzerland. The church which you see in the picture is more than 700 years old.

of France? What are the chief manufactures of France? For what is Austria-Hungary noted? What are the chief occupations of the Swiss?

LESSON LV.

1. Southern Europe consists of Spain and Portugal, Italy, Greece, Turkey, Rou-ma′-nia (*roo-*), Servia, Bulgaria, and Mon-te-ne′-gro.

2. Spain and Portugal were once the foremost countries of Europe. They occupy a peninsula. A large part of the country is mountainous. Spain is a kingdom, and Portugal is now a republic.

Home of a Spanish nobleman. Notice the flowers in the open court, or patio, and the palace around it. Compare with the patio on page 79.

From the top of the loftiest mountains the view is beautiful. We see the blue Mediterranean like a quiet lake, dotted with steamers and white-sailed vessels. Snowy mountain peaks are all around us, and far away over the water is the dim outline of the shores of Africa.

Spain possesses the richest quicksilver mine in the world. Among the highlands are raised large flocks of **merino sheep,** so famed for their

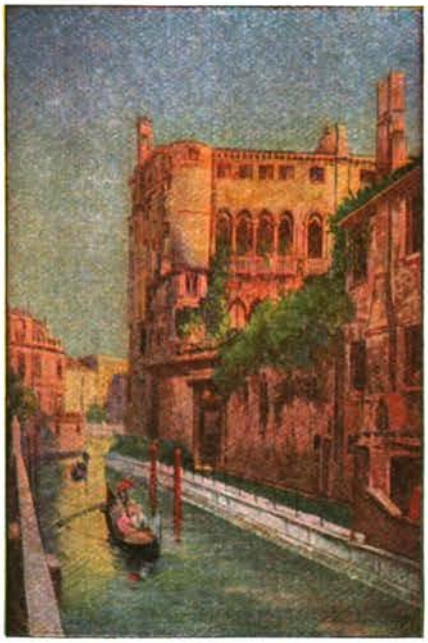
wool. In the valleys fine crops of wheat and corn grow.

The southern portion of the peninsula is a land of **fruits.** Grapes and figs, lemons and oranges grow in profusion. The **wines** are among the most celebrated in the world.

From Spain we get sherry; from Portugal, port wine; and from both, raisins and other fruits, and cork.

Cork is the bark of the tree called the cork-oak. Large forests of this oak grow in Spain and Portugal.

Madrid is the capital and largest city of Spain; **Lisbon,** of Portugal.



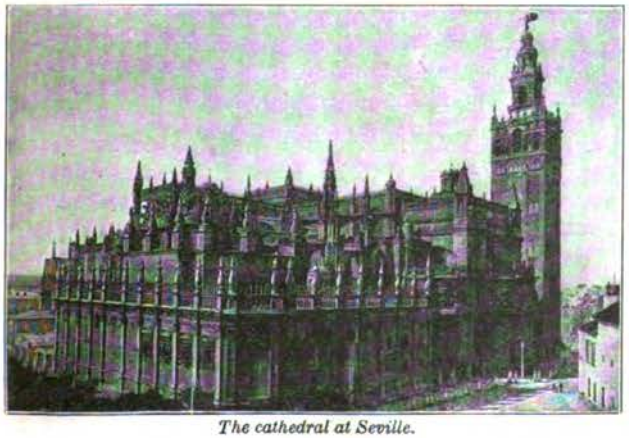
Palaces where people live and canals which serve for streets in Venice. The boat which we see is a gondola.

3. Italy is a peninsula, and, as we see on the map, has the shape of a boot. The Apennine mountains stretch through it from top to toe.

Sicily and **Sardinia** belong to Italy.

No country in the world is more famed than Italy for its beautiful scenery, its sunny skies, and its delightful climate.

The agricultural products are like those of Spain. Immense plantations of mulberry-trees are grown, and more **silk** is produced here than in any other country of Europe. Here, too, are the largest rice fields on the continent.



The cathedral at Seville.

Among the mineral products we must remember **sulphur.** The chief supply of the world comes from Italy. It is used in making gunpowder.

4. Rome is the capital. In ancient times this city ruled the world. In Rome is St. Peter's, the largest church ever built.

Naples is built round the shores of a beautiful bay.

In sight of Naples is the volcano, Vesuvius. An eruption about 1800 years ago buried three cities in ashes and lava.

Venice is a curious city built on numerous islands several miles from the mainland. It has canals instead of streets, and boats instead of carriages. Beautiful glassware, jewelry and lace are made in this city.

5. Greece was the most cultivated nation of ancient times. **Athens** is the capital.

The Greeks wrote the best poetry, painted the finest pictures, and erected the handsomest buildings. Many

Gathering oranges near Valencia in Spain.

remains of these still exist; but the glory of Greece has passed away. Still the country is far better off than it was some time ago. There are now good roads; you can travel by rail, and send a telegram if you wish, and everybody can get a public school education.

The only export that deserves to be mentioned is **currants,** which are a kind of little grape.

6. Turkey is an empire consisting of many different parts. It is like a body, the head of which is in Europe, the other parts elsewhere.

Turkey is, perhaps, the worst governed country in the world, but the people now have some share in the government. The Emperor is called the

A spice shop in the streets of Constantinople.

Sultan. The land is fertile, but the farming is wretched. In fact, scarcely anything is well done in all the country.

Two good things, however, are made: carpets and **at'-tar of roses** — a perfume made from rose leaves. Near the cities where this perfume is made, whole fields are planted with rose trees.

The Turks are Mohammedans. They worship God, but they do not consider the Bible as his word. Instead of it they have the *Koran*, a book written by Mohammed, whom they call "The Prophet." Their churches are called *mosques* (mosks). Friday is their Sunday.

Con-stan-ti-no'-ple, the capital, is one of the most beautiful cities in the world.

7. The Kingdoms of Bulgaria, Servia, Roumania, and Montenegro were formerly parts of the Empire of Turkey. Bulgaria was the last of these states to become entirely independent of Turkish rule.

These four countries and Turkey occupy a region called the **Balkan peninsula.** Roumania and Bulgaria are in the fertile valley of the Danube river; Servia and Bulgaria are more mountainous. Servia has no seacoast.

The chief products are grain, hogs, and cattle.

Ruins of ancient buildings in Athens. The hill in the background was the Acropolis, or citadel, of the town. On its summit was the Parthenon, or Temple of Minerva, the most beautiful building in the world.

For Recitation.—Of what does Southern Europe consist? What are the chief exports of Spain and Portugal? For what is Italy noted? What can you say of Greece? Name two of the leading manufactures of Turkey. What are the chief products of Roumania, Servia, and Bulgaria?

REVIEW OF EUROPE.

Countries.—*In what part of the continent is it? Name the capital.* — SWEDEN. NORWAY. GREAT BRITAIN. NETHERLANDS. GERMANY. DENMARK. RUSSIA. FRANCE. BELGIUM. SWITZERLAND. AUSTRIA-HUNGARY. TURKEY. SERVIA. ROUMANIA. GREECE. ITALY. SPAIN. PORTUGAL.

Islands.—*Near what part of the coast? To what country does it belong?*—IRELAND. HEBRIDES. ORKNEYS. SHETLAND ISLES. SICILY. SARDINIA. CORSICA. CRETE.

Capes.—*On what part of the coast?*—NORTH. MATAPAN. ST. VINCENT. FINISTERRE (*-tair*).

Mountains.—*Where are they, and in what direction do the ranges extend?* — ALPS. CAUCASUS. URAL. APENNINES. PYRENEES. BALKAN. CARPATHIAN. DOVERFIELD. MT. ETNA. MT. VESUVIUS.

Bay, Gulf, and Seas.—*Where is it?*—BAY OF BISCAY. GULF OF BOTHNIA. MEDITERRANEAN SEA. BLACK SEA. BALTIC. ADRIATIC. NORTH SEA. WHITE. IRISH.

Straits.—*Connects what waters? Separates what lands?*—GIBRALTAR. DOVER. MESSINA.

Rivers.—*Where does it rise? Into what does it flow?*—VOLGA. DANUBE. DNIEPER. DON. DWINA. VISTULA. ODER. ELBE. RHINE. RHONE. PO. SEINE. TAGUS. LOIRE (*lwar*).

Lakes.—*Where is it?*—LA-DO'-GA. O-NE'-GA. CASPIAN SEA.

Cities.—*In what country? On or near what water?* —LIVERPOOL. EDINBURGH. LYONS. HAMBURG. DRESDEN. MOSCOW. ODESSA. DUBLIN. NAPLES. VENICE. MARSEILLES. TRIESTE. NIZHNI NOVGOROD.

ASIA.

LESSON LVI.

1. Asia.—Having finished our visit to Europe, let us pass into Asia. It is sometimes called the Land of the Morning. This is because the sun rises on Asia earlier than on Europe, and so the morning light seems to come from Asia to Europe.

A Hindu village among the Himalaya mountains.

From this we can see that Asia lies east of Europe. It is the eastern part of Eurasia, as the great body of land that is divided into Europe and Asia is called. It is, of course, still further to the eastward of our own country. Parts of it are quite half-way round the world from us. Can you tell how many miles that is?

2. Size and Population.—Asia is more than four times the size of Europe. It is the largest of all the continents.

It contains more than half of all the people living on the earth. These people are of several different races. It will be interesting to notice how curiously many of them live.

3. The Coast Line of Asia, like that of Europe, is rough and jagged. Peninsulas jut out from it, and arms of the sea reach into it, so that Asia has plenty of sheltering harbors.

The tropical vegetation of southern Asia. A country scene in Bengal, near Calcutta.

4. Surface.—If we could be carried over the continent in a balloon, we should see that the central part is full of great mountain ranges and high plateaus. Here are the loftiest mountains in the world.

If our balloon rose as high as the top of Mount Everest, the highest peak of the Himalayas (*him-ah'-la-yas*), we should be more than five miles above the sea.

5. Rivers.—We have seen that the Rocky mountains and the Andes are the birthplace of those magnificent rivers, the Missouri and the Amazon. In Asia, as in North and South America, the deep snows and heavy rains that fall upon the mountains feed many grand rivers. Find some of them on the map, and tell in what mountains they rise.

On the eastern coast of Asia.—The town is Vladivostock, the terminus of the Siberian railroad.

6. Climate and Productions.—Asia reaches nearly from the equator to the north pole. It lies in three zones, and has every kind of climate.

On the **Arctic shores** we find ourselves among frozen swamps and snow fields. The people who live here are like the Eskimos of North America. They dress in furs. In this region, as in Greenland, scarcely a tree is seen, and hardly anything grows but mosses and lichens.

In **Southern Asia** we must use every care to

ASIA
SCALE OF MILES
0 500 1000
100,000 SQUARE MILES
Longitude East from Greenwich
Longitude 147 East from Washington 167
West 153 Longitude
ARCTIC OCEAN
ATLANTIC OCEAN
PACIFIC OCEAN
INDIAN OCEAN
EUROPE
ASIA
AFRICA
NORTH AMERICA
RUSSIAN EMPIRE
SIBERIA
CHINESE EMPIRE
EMPIRE OF JAPAN
RUSSIAN TURKESTAN
TURKEY IN ASIA
ARABIA
PERSIA
AFGHANISTAN
BRITISH INDIA
FRENCH INDO-CHINA
MONGOLIA
MANCHURIA
TIBET
BERING SEA
OKHOTSK SEA
SEA OF JAPAN
YELLOW SEA
CHINA SEA
ARABIAN SEA
BAY OF BENGAL
BLACK SEA
MEDITERRANEAN SEA
RED SEA
CASPIAN SEA
ST. PETERSBURG
MOSCOW
CONSTANTINOPLE
Smyrna
Mount Ararat
Damascus
Jerusalem
Beirut
Tiberias
Dead Sea
Mecca
Medina
Aden
Mocha
Strait of Bab-el-Mandeb
Cape Guardafui
MASKAT
Persian Gulf
Gulf of Oman
TEHERAN
Ispahan
Herat
HINDU KUSH MTS.
KABUL
KHELAT
BALUCHISTAN
Delhi
Everest
LASSA
HIMALAYA MTS.
KUEN-LUN MOUNTAINS
Tashkend
BOKHARA
Khiva
Aral Sea
Lake Balkash
CASPIAN SEA
CAUCASUS Mts.
TRANSCAUCASIA
URAL MOUNTAINS
Volga River
Ural River
Obi River
Irtish River
TOBOLSK
ALTAI MOUNTAINS
Lake Baikal
Yenisei River
Lena River
Yana River
Nova Zembla
C. Chelyuskin
Behring Strait
Kamchatka
Cape Lopatka
KURILE ISLANDS
SAKHALIN ISLAND
Amoor River
Vladivostok
Gobi
DESERT OF GOBI
PEKIN
Great Wall
Great Canal
Hoang-ho River
Yangtze River
Nankin
Shanghai
SEOUL
Fusan
Strait of Korea
Kyoto
TOKYO
Yokohama
Foliyama
RIU KIU ISLANDS
TROPIC OF CANCER
FORMOSA
Canton
Hongkong
HAINAN ISLAND
HANOI
Le Mandalay
BURMA
Irrawaddy River
Gulf of Siam
Bangkok
Cape Cambodia
MANILA
PHILIPPINE ISLANDS
EQUATOR
NEW GUINEA
BORNEO
CELEBES
SUMATRA
Strait of Malacca
Singapore
CEYLON
COLOMBO
Cape Comorin
Madras
Bombay
CALCUTTA
Ganges River
Jumna River
Indus River
Tigris River
Euphrates River
Mount Sinai
Arabian Gulf
Lake Aral
Lake Balkash
Lake Baikal
Lake Hamun
Lake Issikul
Lake Tchad
Lake Victoria
Nyanza
Nile River
Niger River
Senegal River
Gambia River
Sierra Leone
Liberia
Ivory Coast
Gold Coast
Dahomey
Togoland
Cameroon
Gaboon
Congo Free State
Angola
Benguela
Cape Colony
Natal
Transvaal
Orange Free State
Zambesi River
Mozambique
Madagascar
Abyssinia
Somaliland
Egypt
Algeria
Tripoli
Morocco
Tunis
Sahara
Soudan
Nubia
Kordofan
Darfur
Abyssinian Mts.
Kilimanjaro
Mount Kenia
Mount Ruwenzori
Mount Elgon
Mount Kamerun
Mount Cameroon
Mount Atlas
Mount Sinai
Mount Ararat
Mount Everest
Mount

MAP STUDIES.

Of what countries are the following cities the *Capitals*?

Pekin,	Calcutta,
Tokyo,	Bangkok,
Teheran,	Hanoi,
Khelat,	Kabul (*ka-bool'*).

What ocean is north of Asia? What ocean is east? What ocean is south?

What two mountain ranges are between Asia and Europe? What two seas? What river?

What isthmus is between Asia and Africa? What sea separates Asia and Africa? Where is the distance shortest between Asia and North America?

What two oceans does Bering strait connect? Name the most northerly cape of Asia. The most easterly.

What is the most northern country of Asia? Of what empire does it form a part? In what direction do its rivers flow? Into what ocean?

Where is the peninsula of Kamchatka (*kam-chat'-ka*)? What sea is west of Kamchatka? (Pronounced *o-kotsk'*.)

What sea is east of Kamchatka? What lake is among the Altai (*al'-ti*) mountains?

What part of the Russian Empire lies east of the Caspian sea?

Where is Lake Balkash? Aral sea? The Caspian sea? *These three are salt. Rivers flow into them, but none flow out. They are like the Great Salt lake of our own country.*

Where is To-bolsk'? Irkutsk (*eer-kootsk'*)?

What empire is south of Siberia? *The Amur river and the Altai mountains separate Siberia from the Chinese Empire.*

In what portion of the empire is China? What two great rivers flow through it.

In what part of China is Pe-kin'? In what part is Canton? Where is Shanghai?

In what part of the Chinese Empire is Tibet? What high mountains are on the south? Where is Lassa?

In what part of the empire is Sinkiang? Mongolia? Manchuria (*man-choo'-ri-a*)? What desert in Mongolia? Where is Kashgar? Where is Korea?

Where is the Yellow sea? *It is so named because the vast quantities of mud washed into it by the Hoang river give to it a yellow color.* What sea is south of China?

What empire, made up of islands, lies eastward of China? What sea separates it from Korea? What port is south of To'-ky-o? (Pronounced *yo-ko-hah'-mah*.)

Where is Indo-China? What countries* does it contain? Where is the Malay peninsula? *This peninsula has given its name to the Malay or brown race.*

What large river in Siam? On what strait is Singapore? *It is noted for its export of tin.*

What bay is west of Indo-China? What country is between the Bay of Bengal (*ben-gawl'*) and the Arabian sea? What form of land would you call it?

To whom does India belong? Name its three great rivers. *Each of them has several mouths.*

Where is Bombay? Ma-dras'? Where is Ceylon? *This island has the finest pearl fisheries in the world.*

What two countries are on the west of British India? What mountains are in Af-ghan-is-tan'?

What country is west of Afghanistan? What sea is north of Persia (*per'-sha*)? What gulf is on the south?

What country is between the Persian gulf and the Red sea? What sea is on the southeast?

In what part of Arabia is Maskat? Where is Mec'ca? Medina (*me-dee'-nah*)? Mocha (*mo'kah*)?

What country is north of Arabia? Why is the strip of land lying on the Red sea colored buff?

Where is Mount Sinai (*si-ni*)? Jerusalem? Damascus? Smyrna? What two rivers flow into the Persian gulf?

On what three seas does Turkey border? On what continent is the capital of Turkey? Name it.

A canal has been cut through the Isthmus of Suez from the Red sea to the Mediterranean. Point out the course of a vessel from Calcutta to the Mediterranean.

What country of Asia lies partly in the frigid zone? What countries lie partly in the torrid zone?

What two small countries lie wholly within the torrid zone? In what zone is the greater part of Asia?

In what direction is Yokohama from Singapore? Kabul from Calcutta? Tokyo from Constantinople?

Use the scale of miles and measure the distance from Yokohama to Singapore.

Routes of Travel.—On what waters would you sail in going from Constantinople to Bombay? How could you go by water from Mandalay to Delhi? What seas would you cross in sailing from Madras to Tokyo? Through what strait would you pass?

In the interior of Asia merchandise is carried by trains of camels called caravans. They cross the desert of Gobi from China to Lake Baikal and from Sinkiang to Persia. Railroads have been built from St. Petersburg through Siberia and Manchuria to the Pacific; from Russia to Bokhara and Tashkend, and from Smyrna to the cities of Asiatic Turkey.

Map Drawing.—On an outline map of Asia have the pupils fill in names of mountains, rivers, lakes, and coast waters. A second lesson may take up the location of countries and cities. Another lesson may be given to productions.

*Burma is now a part of British India.

The silk-cotton tree of India. The seeds are covered with a soft fiber which is used for making pillows and mattresses.

protect ourselves from the scorching sun. It is the land of umbrellas and fans. Oranges, dates, and cocoanuts hang on the trees; the groves yield the fragrant cinnamon; fields are bright with the snowy blossoms and red berries of the coffee-tree; the lofty bamboo waves in the breeze.

Between the freezing north and the scorching south lies the **temperate region** of Asia. No part of the world contributes more than this to the comfort of man. It is the native home of the tea-plant, the cotton-plant, the sugar-cane, and the silkworm. Here the rose first blossomed, and the melon, the peach, and the orange first bore their luscious fruit.

7. Animals.—Asia has many curious animals. Its deserts are crossed by the patient camel. The elephant with his long trunk, the ferocious tiger, and the rhinoceros live in the jungles of southern Asia.

The sago palm. Sago is made from the pith of the tree. A single tree will often yield 600 *pounds of sago flour.*

A bamboo grove.

Here, too, poisonous serpents abound. Crocodiles swarm in the rivers. The wild beasts and serpents kill thousands of people every year.

Many of our most useful domestic animals, such as the horse, the cow, the ass, and the sheep, are natives of Asia. From this continent they were taken to Europe by migrating tribes and thence to America.

For Recitation.—How does Asia compare in size and population with the other continents? What is said of the Himalaya mountains? Name some of the animals of Asia.

The cocoanut palm.

LESSON LVII.

1. Asiatic Russia.—The eagle that is stamped upon the coins of Russia has two heads. This means that Russia has possessions in two continents. She owns more than half of Europe and a large part of Asia.

Leaving Europe, we cross the rough, cold Caucasus mountains, and enter Transcaucasia, or *the land on the other side of the Caucasus*. It is famed for its oil wells, which rank next to those of the United States.

The Caspian sea lies east of Transcaucasia.

A home in Asiatic Russia.

Steamers and fishing boats are busy on its briny waters. Let us cross to the other side. We are still in the Russian country.

The country is called Russian Turkestan. It is a good grazing land and produces cotton and silk. Early and late we hear the bleating of sheep, the grunting of camels, and the lowing of thousands of cattle.

Most of the people—**Tartars,** as they are called—are wandering herdsmen. They are dirty and ignorant; and there is nothing to keep us long in Turkestan.

A caravan of 2,000 camels is going from Bokhara into Siberia. Let us go with them.

These camels are of the kind called Bactrian, which has two humps on its back. They can endure cold.

A Chinese temple.

2. Siberia is one of the coldest countries on the globe. In climate and products it resembles the Dominion of Canada.

In the southern part **grain** is raised, in the central part are vast **forests,** but in the far north scarcely anything grows.

A village where exiles were once kept prisoners.

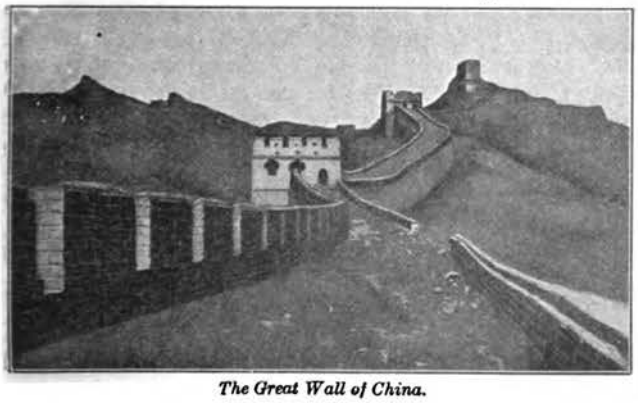
Fur-bearing animals—such as sables, ermines, wolves, foxes, and bears—abound in the forests, and as in Canada, so here, a great many persons are hunters and trappers.

But the **mines** of Siberia are its great source of wealth. Gold and silver, lead, copper, and iron are found in abundance, as well as graphite (black lead), from which lead pencils of the finest kind are made.

A great railroad has been built across Siberia, and many people are settling there.

Many of the inhabitants are exiles or their descendants. The exiles are persons who have been banished from their homes in Russia by the emperor, and are not allowed to return. Many of them are obliged to work in the mines as a punishment.

Near the shores of the Arctic ocean there is a small number of people who are like the Eskimos of Alaska and Greenland.



The Great Wall of China.

3. China.—After seeing so much ice and snow, it will be pleasant to visit the "Flowery Land," as the people of China call their country. To reach it we will mount our camels and cross the desert of Gobi. It is a dreary region, and we pass through it just as fast as we can.

We are nearing the borders of China, and in the distance we see the **Great Wall.** This is more than 1,000 miles long, and partly surrounds China. In some places it is thirty feet high, and so broad that six men on horseback can ride abreast on the top of it. This wall was built more than 2,000 years ago, to keep the fierce Tartars of the north out of the Chinese country.

We are now among the great Mon-go'-lian **race,** of which the Chinese are the largest family.

China is densely peopled. It contains about one-fourth of all the inhabitants of the world. For want of room on the land, several millions live on boats moored in the rivers and harbors. These boats are arranged like houses on a street.

A Chinese home; a barber plaiting a man's hair, a woman washing clothes.

4. Occupations and Productions.—Most of the people are farmers. Every foot of ground, even on the steep hillsides, is carefully cultivated. Canals are dug from the rivers to water the land. Immense quantities of tea, cotton, sugar, and rice are raised. Rice is the chief food of the people. Most of their clothes are made of cotton.

China supplies the world with much of its tea.

The **tea-plant** is a shrub with a bright glossy leaf and a pretty white flower. The leaves are what we call tea. They are picked by hand, and dried over a charcoal fire.

The **mulberry-tree** is extensively cultivated. Some of the plantations are so large that it takes two or three days to travel through them.

The **bamboo** is as useful to the Chinese as the palm is to the Indians of South America. With it they build houses and boats, make furniture, baskets, water pipes, and all sorts of useful articles. The young shoots are used as food. They are cooked and eaten like asparagus.

A Chinese family at dinner.

Many of the people are fishermen. They some-

STUDIES ON THE RELIEF MAP.

Highland and Lowlands.—Trace the great highland ridges on the relief map. In which directions do they extend? Find the names of three of these ridges on the political map. Find the southern extremity of India, and trace directly north of it. First you pass a region of light gray color. What name is given to this? (Elevated plains or plateaus are colored light gray.) Next you come to a broad valley. What is its name? What lies north of this valley? Crossing the high mountain ridge you find a great central plateau region. Trace this northwest until you come to the eastern extremity of the continent. What name is given to this extremity? Trace the northern border of the continent. What kind of surface do you find here? Find the great peninsula in the southwest. What kind of surface does it have? All the continents that we have studied so far have had great plains in the interior. Compare them with Asia. Where are the great plains found in Asia?

Coast Line.—Put your finger on the northeastern extremity of Asia. Trace southward. What peninsula do you find? What great group of islands? Is this coast line regular or irregular? Name some of the inlets on this coast. What peninsula west of the great group of islands? Find the southeastern extremity of Asia. What name is given to the long neck of land found there? Trace two other peninsulas in the south. Which one is farther south? In which zone does the northern coast lie? The water of this coast and the mouths of the rivers are frozen during nine months of the year.

Rivers and Lakes.—In what part of Asia are lakes found? Some of these are salt. Can you tell which ones? Can you tell why they are salt? What seems to be the largest lake in the northern part? Find three great rivers rising in the central highlands and flowing south. Find three flowing north. Find three flowing east. Notice that nearly all rivers flow from the center of the continent toward the coast. Why is this? Which of the lakes have rivers flowing into them? Find two rivers in the western part that unite.

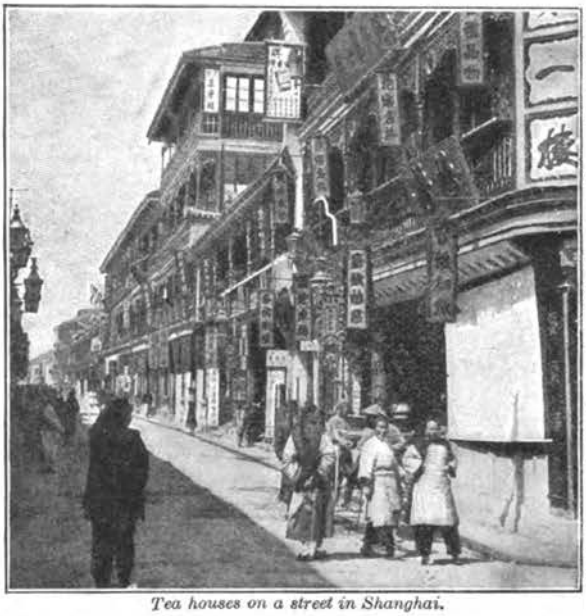
Plants and Animals.—Trace the tropical regions of Asia. Can you tell some plants and animals that are found in this region? Find the great desert regions of Asia. What animals are found here? What can you tell of plant life in these regions? Trace the cold belt of Asia. What plants are found in the southern half of this belt? In the northern half? Find the temperate belt of Asia. What countries are in this belt? What can you tell of the plants and animals of this belt?

Use this map as suggested in the studies on the opposite page.

times use nets, but often we see them going out in their boats with two or three solemn-looking birds called *cormorants*. These birds are trained to catch fish. They dive into the water and quickly fill the fisherman's basket.

The **manufactures** of the Chinese are chiefly silk, cotton goods, and porcelain. Machinery is not used. Everything is made by hand.

5. Cities.—China contains a great number of large cities. **Pekin** (*pe-kin'*), the capital, is one of the largest in the world. **Shanghai** (*shang-hi'*) and **Canton** are the chief commercial ports.



Tea houses on a street in Shanghai.

Not many years ago the Chinese were unwilling that any foreigners should enter their cities. When the author of this book first visited China, he and some companions determined to see something of a Chinese city. They entered the gate of Canton, running as fast as they could. But they were soon stopped. Men, women, and children drove them back to their ship. Now foreigners are living in many of the cities of China.

If we pass through the streets of one of their cities, we see every moment something strange. The men have all their hair shaved off, except a single tuft. This is never cut. It is plaited in a long braid, which hangs behind the back.

Some of the women hobble about like children just learning how to walk. They are persons of wealth and rank. When they were infants their feet were tightly bandaged, to keep them from growing; and so they have nothing but stumps for feet.

Most of the people dress in blue cotton cloth. Notice, in the picture on page 117 the mandarin in his official

HOMES AND PEOPLE.

On the opposite page are pictures of some of the people living in Asia. The first picture shows the tent of a family of Turkomans, a wandering people living on the Steppes, or dry plains of Turkestan. Their home is made out of coarse canvas woven out of cotton. These people keep sheep and cattle and when they need fresh grass for them they take down their tents and travel to another place. The second view shows the home of the Korean minister of war. The Korean people are so strange that their land has been called the hermit nation. They have not now a separate government, but are under the control of Japan. The children sitting on the steps are the grandchildren of the minister. What do you see peculiar about the house? What do you notice about the dress of these people?

The next picture on the left shows the home and garden of a wealthy Persian. Persia is a very high country. It is a part of the plateau of Iran and is thought to have been the earliest home of the human race. Most of the Persians live in villages enclosed by high walls. Their homes are built of mud and are only one story high. The wealthier classes are very fond of having parks and gardens about their homes. Turn to page 121 and describe a Persian sleeping room. Compare with the Japanese sleeping room on page 118.

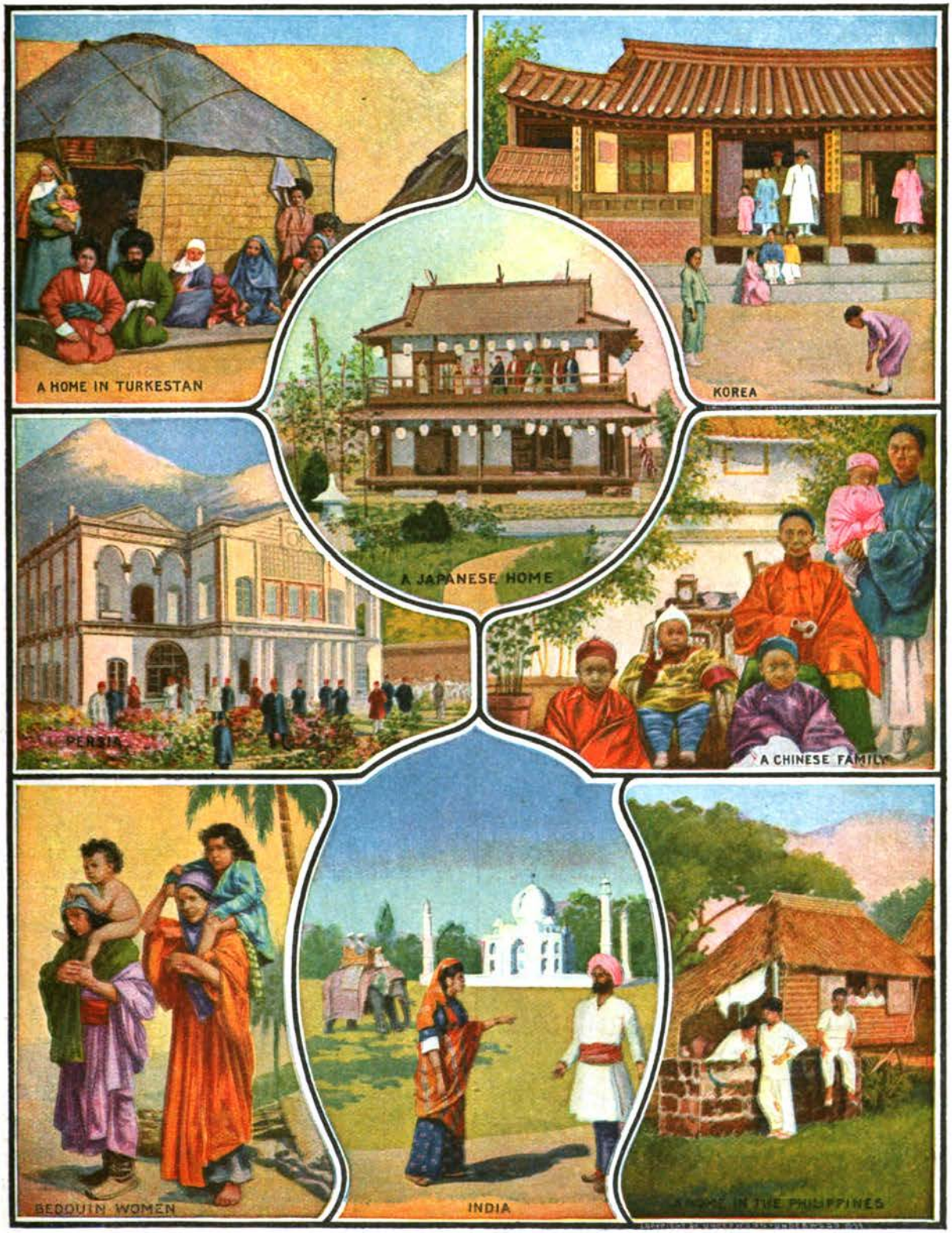
What can you tell about the Japanese house? It looks something like our own homes on the outside, but if you were to go inside it would appear very strange, for you would see no furniture, but only papered walls and floors covered with matting. Turn to page 118 and tell about the Japanese sleeping room. Tell about traveling in Japan. The Chinaman who is seated in the next picture is a Mandarin, or officer of high rank. His son is holding the baby and the other children of the family are in front.

Turn to page 114 and look at the picture of a Chinese home. It is only one story high. It is said that the Chinese houses are built to look like tents because the first Chinamen lived in tents. Notice the other pictures of Chinese life. What does each one show?

The two women with babies on their shoulders are Bedouins of Syria, one of the provinces of Turkey. Their home cannot be seen, but it is most likely a tent of cloth or skins, like the one of the Turkomans. For these people live in the desert and keep sheep and camels. Grass is not very plentiful and they must travel from place to place to find it.

What have you learned about the Hindus? Where do they live? What is the climate of their country? There are many very beautiful temples and palaces in India, but the homes of the people are for the most part mere huts of mud. Describe the pictures on page 120. Find India on the relief map, page 115. What kind of surface does it have?

The last picture is a view in the Philippines. Where are these islands and to what country do they belong? You see that their houses are built of bamboo poles and thatch or straw. They do not need to wear many clothes in that hot country. Can you tell what things are obtained in the Philippines?



Homes and People of Asia. Study these pictures in connection with the descriptions and questions on the opposite page.

dress who is with his children in the courtyard of his home. The Chinese are very polite, and a Chinaman obeys his parents as long as they live.

Instead of eating with knives and forks, the Chinese use two little rounded sticks, called *chopsticks*. These are usually made of wood or ivory, and are about ten inches along.

The Chinese are a very ingenious people. Some things that we do they did long before us. They used the compass in steering ships at sea, and printed books, nobody knows how long ago. Cups and saucers are often called chinaware, because the first used in Europe were made in China.

6. Chinese Empire.—Manchuria, Mongolia, Sinkiang, and Tibet belong to China, and with it make up the Chinese Empire. Tibet is the highest inhabited country in the world.

Traveling in a jinrikisha.

A Japanese sleeping-room.

Korea lies northeast of China. Formerly it was a kingdom, but it is now controlled by Japan.

For Recitation.—For what is Siberia noted? What is said of the population of China? What are the great products of China? What are the chief exports of China?

LESSON LVIII.

1. Japan.—At Shanghai let us embark on a steamer and visit the empire of Japan. It lies east of China, and consists of four large islands and many smaller ones. In some respects it resembles the great island kingdom of Great Britain.

The vegetation of Japan is wonderfully rich and varied, and the people are very fond of flowers.

The camphor tree.

Tea, rice, and **silk** are the great products. Rice is the daily food of the people.

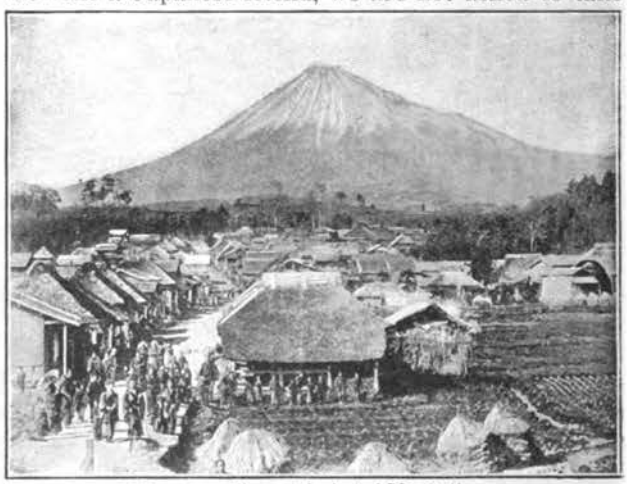
One tree yields the resin from which the well-known Japan varnish, called **lacquer** (*lak'er*) is made, and another, the gum called **camphor.**

Bamboo is used, as in China, for making all sorts of useful articles.

2. The people are Mongolians. They are like the Chinese, but are more progressive. Within a few years they have adopted the inventions of the most enlightened nations. Railways, steamboats, and telegraphs have been introduced, and public schools established.

The Japanese are ingenious and skilful workmen. Their paper and silks are beautiful. No nation in the world surpasses them in making porcelain and ornamental vases of metal. Of japan, or lacquer ware, they make drinking cups, bowls, and other useful articles.

Some of the Japanese customs are very curious. If we visit a Japanese friend, we are not asked to take



A Japanese village at the foot of Mt. Fujiyama.

chairs, because there are none. We sit upon the floor on a mat. If we dine with our friend, we do not go to the table; dinner is served on a tray. Eating is hard work for us. It is done, as in China, with chopsticks. When we wish to leave the house of our friend, he orders a jinrikisha (*jin-rik'-ish-a*), or hand-carriage. This is a comfortable chair mounted on two wheels, and drawn by a man. (See picture, page 118).

The chief **exports** are silk, cotton goods, matches, coal, and camphor.

3. Cities.—Tokyo is the capital. More than a million people live in it. **Yokohama** is the port where most of the foreign trade is carried on.

4. Indo-China is the southeastern peninsula of Asia. It lies in the Torrid zone, and is one of the hottest parts of Asia. It contains French Indo-China, Burma, and the kingdom of Siam.

A tea plantation in Japan.

British soldiers mounted on camels.

Rice and **sugar-cane** are the great crops. In the dense forests are found the valuable ship timber called **teak**, and the fragrant **sandal-wood**, which is burned as incense in the temples. As in China, so here, the bamboo grows in abundance, and many of the people live in bamboo boats on the rivers, or in bamboo huts which rest on piles.

Large quantities of rice are exported to China and Japan and teak logs are floated down the rivers and sawn into lumber, which is exported.

Like the Chinese, the people of Indo-China have the custom of shaving their heads, leaving only a single tuft; they use no knives or forks, and live chiefly on rice.

The country is famed for its **elephants.** When a white one is found, he is honored and is not allowed to work. All the dark-colored elephants are compelled to work.

Traveling in Burma.

5. British India.—Leaving Indo-China, we cross the bay of Bengal and land at the port of Calcutta.

We are now in India. This country consists of the great peninsula lying west of the Bay of Bengal, with the region of Burma on the eastern side of the same bay, and the island of Ceylon (*see-lon'*). India is a part of the British Empire, and is therefore called British India.

Many English people live here, but most of the inhabitants are natives. Those of the peninsula are mostly **Hindus.** Some are dark olive in color, others light brown, others again are nearly black.

India, like China, swarms with people. The land in many parts is almost covered with villages, towns, and cities. Though only about one-

Threshing rice in Japan.

half the size of the United States, it contains about four times the number of inhabitants.

6. The Hindus are divided into four classes (called *castes*)—priests, soldiers, merchants, laborers.

A priest and a laborer may not eat together. The daughter of a merchant is not good enough to marry a priest.

The Hindus are mostly pagans. They worship idols. Juggernaut is one of them. He is an immense block of black stone, with two splendid diamonds for eyes. The Ganges is worshipped almost as if it were a god. It is called the holy river. The people make long and weary pilgrimages up one bank and down the other. They throw themselves into the stream, feeling sure that it will cure their diseases, and wash away their sins.

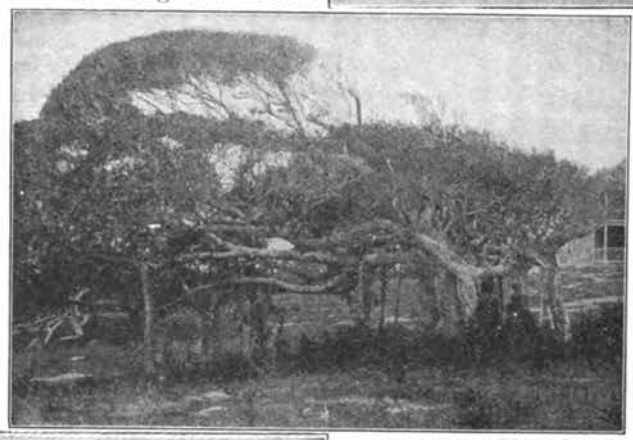
The Hindus are skilful workmen. They make the famous cashmere shawls, from the wool of the Cashmere goat. Their finest muslin is equal to the best that is made by machinery. It is so delicate that they call it woven wind and evening dew.

Threshing wheat with cattle in India.

Cotton, opium, indigo, sugar, rice, tea, wheat, jute, hides, and tobacco are the **chief products.** Rice is the most important article of food. Opium is the dried juice of a kind of poppy. It is much smoked and chewed, especially by the Chinese.

The famous **banyan tree** grows in India. It curiously sends down shoots from its branches to the ground. These take root and become trunks. A single tree may have many thousand such trunks. There is a banyan tree at Calcutta which covers four acres of ground.

A street scene in Bombay.



A banyan tree. Notice how the branches have taken root, becoming large trunks.

7. Cities. — **Calcutta, Bombay,** and **Madras** are the chief commercial cities of India. Calcutta is the capital.

For Recitation.—What are the chief products of Japan? What is said of the Japanese? What are the chief products of Indo-China? What can you say of the population of India? What are the great products of India?

LESSON LIX.

1. Afghanistan and Baluchistan lie to the west of India. They are wild, mountainous countries. Much of the land is desert. The valleys abound in fruit.

The great caravans that go from India to Persia and Turkestan, carrying gums, precious stones and other costly things, have to pass through these countries.

The people are called Afghans and Baluchees. They are very warlike. Many of them are wandering herdsmen, and have large numbers of camels, horses, and sheep. They are Mohammedans.

2. Persia.—Glad to leave the warlike Afghans, we enter Persia. A great deal of the country is dry and barren; but wherever the fields are watered the soil is very productive.

Persia is a land of fruits. It is the native home of the peach and the melon. Flowers abound. Fields of roses are raised, and hyacinths grow wild. There are large mulberry plantations, and great quantities of silk are produced.

The Persians are famed for their shawls and carpets.

In ancient times this was one of the most powerful countries in the world. But its glory is departed, and Persia is scarcely reckoned among the nations.

3. Arabia.—Let us cross the Persian gulf to Arabia. Here, as in Persia, we find a great deal of desert land. The coast region and the valleys, however, are very productive, and there are fertile spots even in the midst of the desert.

Like Persia, Arabia is a land of fruits. Dates, melons, pomegranates, grapes, figs, oranges, and citrons abound. The best coffee in the world comes from Mocha. Gum arabic is largely gathered.

A party of Bedouins.

Constantinople.

It derives its name from the country. It is the dried sap of the acacia tree.

Some of the people of Arabia live in cities and villages as we do. Others who are called Bedouins (*bed'oo-eens*) live in the desert. They have

A Persian sleeping-room.

tents instead of houses, and keep large numbers of horses and camels. Their horses are celebrated for their fleetness and intelligence.

Mec'ca, the birthplace of Mohammed, and **Medina,** his burial place, are holy cities of the Mohammedans.

Once at least in his life every good Mohammedan must go on a pilgrimage to these cities. It is part of his religion. When the pilgrim is nearing Mecca, he must dismount from his camel and approach the sacred place on foot.

The Mohammedans say their prayers several times in the day. Instead of a church bell to remind them of the proper time, they have men to call out from the minarets or spires of the mosques, "To prayers, to prayers, O true believers!" They always pray with their faces turned in the direction of Mecca.

Mohammedan women, particularly those who live in cities, wear veils out of doors. These are very long and wide and cover the entire head and face, leaving only two little holes for the eyes. At the court of the Sultan both men and women wear modern European dress.

4. Turkey.—While visiting Europe we found that the head or capital of the Turkish or Ottoman Empire was in that continent. The other portion, or body of the Empire, lies chiefly in Asia, and is called Turkey in Asia. The capital of the empire is **Constantinople.**

A great deal of Turkey in Asia is desert, and much even of the fertile land is not cultivated. If a man raises a crop, the government takes a large part of it from him. The people therefore feel that it is not worth while to be industrious. Still many of the products are valuable.

Various grains, fruits, tobacco, and the poppy are raised, and a large quantity of silk is produced.

The city of Smyrna.

Near the coast are the great **sponge fisheries** of the Mediterranean. Divers go down from boats to the bottom of the sea, and pull the sponges from the rocks.

A giant fig tree.

Damascus is the oldest city in the world. It looks beautiful at a distance, but it is dirty and ruinous. **Smyrna** is the chief city and seaport. Its exports are figs, raisins, and rugs.

Jerusalem. Place where the great Temple of Solomon stood.

The customs of the people are curious. The men shave their heads and wear *turbans*. These consist of several yards of linen or muslin wound round the head to protect the wearer from sunstroke.

When they enter their mosques, they take off their shoes instead of their turbans. In the evening crowds of people are seen drinking coffee and smoking in the coffee-houses, and eagerly listening to story-tellers.

Palestine, or the Holy Land, is in Turkey in Asia. Here are **Jerusalem,** once the capital of the Jewish nation; Bethlehem, the birthplace of Jesus, and many other places that recall memories of the life and teaching of Christ.

For Recitation.—What have you learned of Afghanistan and Baluchistan? Of Persia? Of Arabia? Of Turkey in Asia?

REVIEW OF ASIA.

Countries.—*In what part of the continent? Name capital or an important city.*

SIBERIA,	AFGHANISTAN,
RUSSIAN TURKESTAN,	TURKEY,
CHINESE EMPIRE,	SIAM,
JAPAN,	PERSIA,
INDIA,	ARABIA,
FRENCH INDO-CHINA,	BALUCHISTAN.

Islands.—*Near what part of the coast? To what country does it belong?*—CEYLON. SAKHALIN. FORMOSA. RIU KIU. KURIL.

Capes.—*On what part of the coast is each located?*—CORMORIN. CAMBODIA. LOPATKA. DESHNEF. CHELYUSKIN.

Mountains.—*Where are they? In what direction do the ranges extend?*—HIMALAYA. KUEN LUN. ALTAI. HINDU KUSH. EVEREST. ARARAT. SINAI.

Seas, Bays, and Gulfs.—*Where is it?*—RED SEA. ARABIAN. CHINA. YELLOW. SEA OF JAPAN. OKHOTSK. CASPIAN SEA. ARAL SEA. BERING. BAY OF BENGAL. PERSIAN GULF. GULF OF SIAM.

Straits.—*Connects what waters? Separates what lands?*—BAB-EL-MANDEB. MALACCA. KOREA. BERING.

Rivers.—*Where does it rise? Into what does it flow?*—OB. YENISEI. LENA. AMUR HOANG. YANG-TZE. MEKONG. BRAHMAPUTRA. GANGES. INDUS. EUPHRATES.

Lakes.—*Location.*—BALKASH. BAIKAL.

Cities.—*In what country?*—CANTON. YOKOHAMA. BOMBAY. MADRAS. ISPAHAN. SMYRNA. LASSA. JERUSALEM. MECCA. MOCHA. DAMASCUS. IRKUTSK.

AFRICA.

LESSON LX.

1. Leaving Asia, let us visit Africa, the home of the Negro race. Most of the natives belong to this race and are savages. Many of them used to be constantly fighting and making slaves of one another. European nations are stopping this.

Africa is second only to Asia in size. It lies chiefly in the Torrid zone, and is the hottest of all the continents.

The coast line is not much indented, and consequently there are very few good harbors. In this respect Africa is like South America.

2. Surface.—Most of Africa is a plateau, or elevated plain. It is surrounded by a narrow belt of low land along the coast. The principal mountains are the Atlas mountains on the north, and a high range on the east near the equator. Large portions of the continent are deserts.

3. Rivers and Lakes.—The chief rivers are the Nile, the Niger (*ni'-jer*), the Kongo, and the Zambezi (*zam-bay'-ze*). The Nile is one of the longest rivers in the world.

Africa contains some of the largest lakes in the world. The most important are Victoria and Tanganyika (*tan-gan-yee'-ka*).

4. Vegetation.—Many curious trees are natives of Africa. The **date-palm** is as valuable to the African as the banana is to the South American Indian. Its fruit is his daily food. The **cocoa-palm** produces the well-known cocoanut. The palm-oil tree yields a yellow oil, which is sent by steamer loads to England. It is obtained by boiling the fruit, and is used for making soap. The **coffee-tree** grows wild.

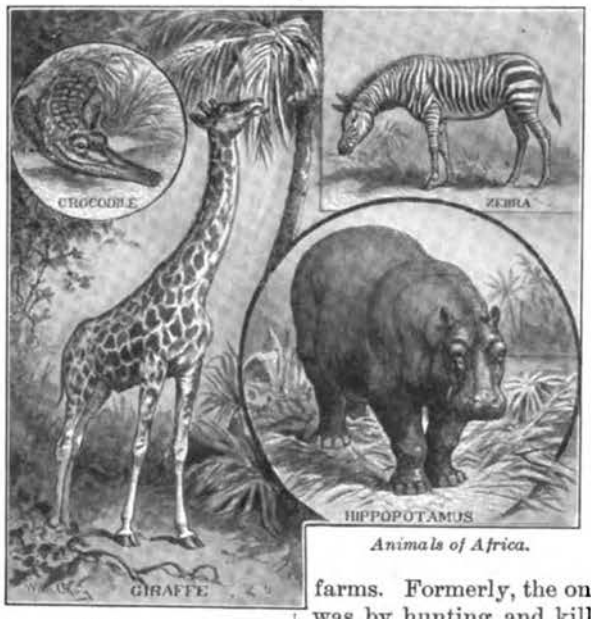
Africa has a remarkable shade tree that grows nowhere else. It is called the **ba'-o-bab.** It is not very high, but it shoots out branches which hang down to the ground, and make for the weary traveler a green shelter like a giant umbrella.

Negroes and their home.

Cotton and indigo, sugar-cane, wheat, and millet (a kind of grain) are largely cultivated.

5. Animals.—Africa is remarkable for its strange and fierce animals. Among the most curious are the gorilla and chimpanzee, huge monkeys which are very like men; the giraffe, hippopotamus, rhinoceros (*ri-nos'-e-ros*), and zebra.

The **giraffe** (*ji-raf'*) is the tallest of all living creatures. The **hippopotamus,** or river horse, lives partly in the water, and partly on land. On the river banks **crocodiles** are to be seen basking in the sun. The white ant builds houses from fifteen to thirty feet high. Whole villages of them are sometimes seen. When deserted, the ant houses are sometimes used by the natives as ovens.



Animals of Africa.

Among the useful animals are the **elephant,** the **ostrich,** and the **camel.** Elephants' tusks and ostrich feathers are two of the chief exports of Africa.

Ostriches are now raised on farms. Formerly, the only way of getting their feathers was by hunting and killing the wild birds. They are very shy, and will run as fast as the fleetest horse. But the natives, by covering themselves with ostrich skins, manage to get near enough to shoot them.

Immense numbers of wild animals roam over the grassy plains. The natives dig great holes, and cover them over with sticks and leaves. They then drive the

AFRICA
SCALE OF MILES
0 200 500 1000
100,000 SQUARE MILES
SAHARA OR GREAT DESERT
EUROPE
ASIA
ATLANTIC OCEAN
INDIAN OCEAN
MEDITERRANEAN SEA
BLACK SEA
CASPIAN SEA
RED SEA
PERSIAN GULF
GULF OF ADEN
GULF OF GUINEA
MOZAMBIQUE CHANNEL
MADAGASCAR
ALGERIA
TRIPOLI
BARCA
EGYPT
NUBIA
ABYSSINIA
SOMALILAND
ITALIAN SOMALILAND
BRITISH EAST AFRICA
BELGIAN KONGO
FRENCH KONGO
ANGOLA
GERMAN SOUTHWEST AFRICA
BECHUANALAND PROTECTORATE
TRANSVAAL
ORANGE FREE STATE
CAPE OF GOOD HOPE (CAPE COLONY)
RHODESIA
NYASSALAND
GERMAN EAST AFRICA
PORTUGUESE EAST AFRICA
NIGERIA
FRENCH GUINEA
SENEGAL
MOROCCO
ALGIERS
TUNIS
FEZ
TIMBUKTU
TINTELLUST
BILMAH
DONGOLA
ABESHR
EL FASHER
DARFUR
KHARTUM
GONDAR
SOKOTO
KANO
ZUNGERU
LAGOS
KAMERUN
LIBREVILLE
LOANDA
BENGUELA
DAMARALAND
WINDHOEK
SALISBURY
VICTORIA FALLS
LAKE NYASSA
LAKE TANGANYIKA
LAKE BANGWEOLO
LAKE MOERO
LAKE ALBERT NYANZA
LAKE VICTORIA NYANZA
LAKE TCHAD
MT. RUWENZORI
MT. KENIA
MT. KILIMANJARO
NAIROBI
MOMBASSA
ZANZIBAR
DAR-ES-SALAAM
ADIS ABEBA
PORT SAID
ISTHMUS OF SUEZ
SUEZ
CAIRO
ALEXANDRIA
CAPE BON
SICILY
SARDINIA
CYPRUS
STRAIT OF GIBRALTA
AZORES (To Portugal)
MADEIRA IS. (To Portugal)
CANARY IS. (To Spain)
RIO DE ORO (To Spain)
CAPE VERDE IS. (To Portugal)
ST. LOUIS
DAKAR
BATHURST
BISSAU
FREE TOWN
SIERRA LEONE
LIBERIA
MONROVIA
IVORY COAST
GOLD COAST
TOGOLAND
DAHOMEY
PORTO NOVO
BINGERVILLE
AKAMPORT
LOPEZ
CAPE PALMAS
FERNANDO PO I. (To Spain)
ANNOBON I.
ST THOMAS I.
ASCENSION ISLAND (To Gr.Br.)
ST. HELENA ISLAND (To Gr.Br.)
CAPE TOWN
Cape of Good Hope
CAPE FRIO
PIETERMARITZBURG
LOURENÇO MARQUEZ
Delagoa Bay
Cape Delgado
TANANARIVO
MAURITIUS I.
REUNION I. OR BOURBON I.
SOCOTRA
C. Guardafui
TROPIC OF CANCER
TROPIC OF CAPRICORN
EQUATOR
30 Longitude 20 West 10 0 10 Longitude 20 East 30 from 40 Greenwich 50 60
57 67 77 Longitude 87 East 97 from 107 Washington 117 127 137

wild animals into the holes. Elephants, antelopes, and other game are taken in great numbers. In the winter this hot continent furnishes comfortable homes for many of the birds of passage that are driven out of Europe by the cold.

For Recitation. —Of what race is Africa the home? What are some of the most useful trees of Africa? Name some of the animals of Africa.

LESSON LXI.

1. Egypt is the most interesting country in Africa. It was once the most highly civilized part of the earth. The people who lived there more than three thousand years ago built **pyramids** and **temples** so grand that they have always been among the wonders of the world.

Date-palm trees, camels, and a pyramid, near the Nile.

Egypt is one of the finest **wheat** regions on the globe. You may remember that when there was a famine in the country where Jacob lived, he sent his sons down to Egypt to buy wheat there. The country is just as fertile now as then.

The fertility of Egypt is very curious, because not a drop of rain falls on all the land except near the coast of the Mediterranean. What makes this rainless region so rich?

Every year in the summer months the **Nile** overflows its banks, and the country is like a great lake. After a while the water subsides. The fields are left covered with mud, and the farmers sow their seed upon this.

But where does the water come from that makes the

MAP STUDIES.

Of what countries are the following cities the *Capitals?*

Cairo,	Freetown,
Tripoli,	Cape Town.
Tunis,	Pretoria,
Algiers,	Salisbury,
Morocco,	Adis Abeba,
Monrovia,	Tananarivo.

How is Africa separated from Europe? What ocean and sea are on the east? What ocean is on the west? What sea is on the north? Of what sea is the Strait of Bab-el-Mandeb the entrance? Where is the Gulf of Guinea?

Name the most northern cape of Africa. The most western. What noted cape is near the most southern point of Africa? Where is Cape Guardafui (*gwar-dah-fwe'*)? What large island is east of Africa? In what ocean is it? What separates it from Africa? *It is a French colony.*

What country occupies the northeastern corner of Africa? What river flows through Egypt? Into what sea does the Nile flow? What city is at the mouth of the river?

Where are the Barbary states? What two countries are west of Tunis? Where is Fezzan? To what country does it belong? Where are the Atlas mountains?

What islands are west of Morocco? What great desert is south of the Barbary states?

What region is south of the Sahara? What river flows through the Sudan and enters the Gulf of Guinea (*ghin'-ne*)? Where is Lake Tchad? Where is Sokoto? Timbuktu? Kuka? Where is Sierra Leone? Liberia? Gold Coast? Belgian Kongo?

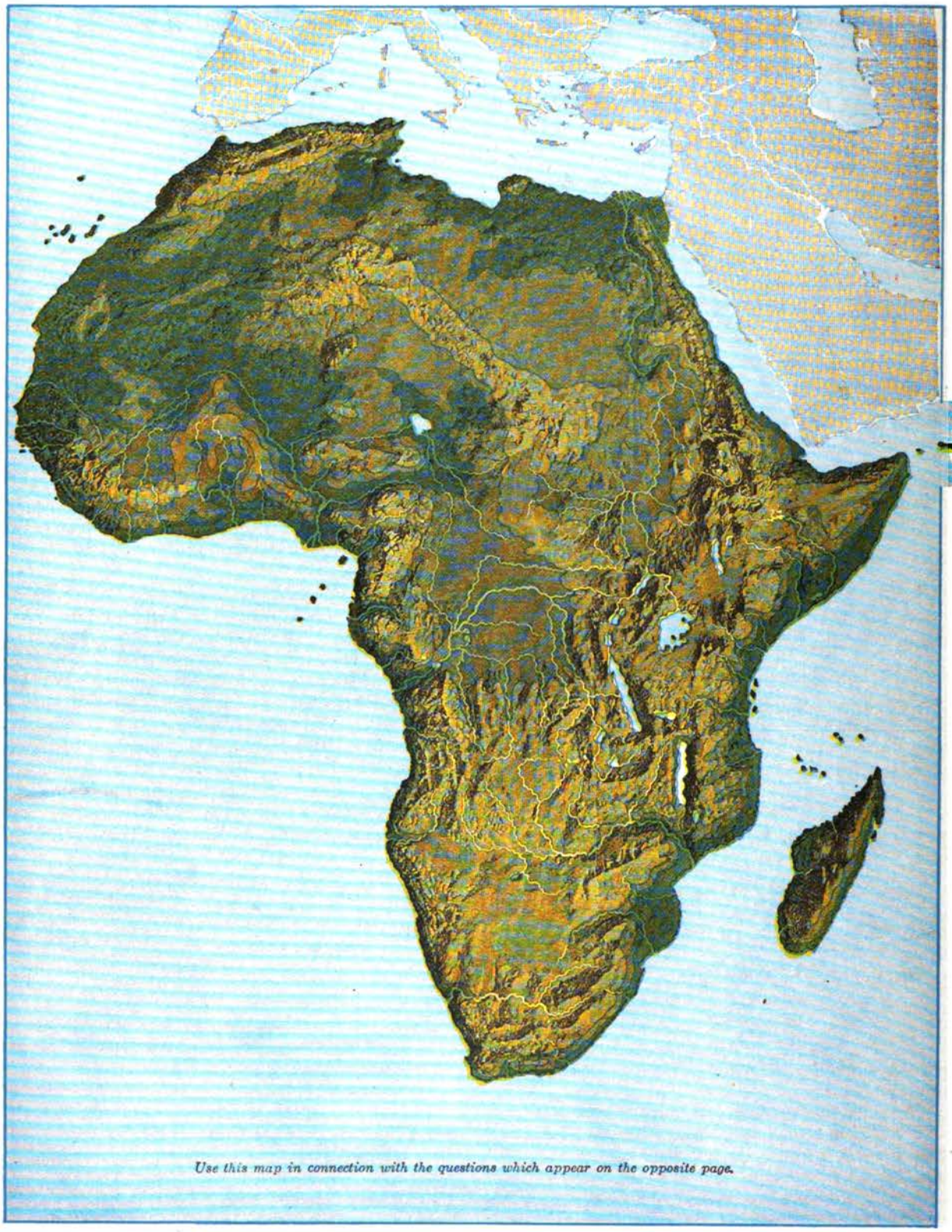
What great river crosses the equator twice? What country does it flow through? Where is Lake Victoria? What river rises in this lake? Where is Lake Tanganyika (*tan-gan-yee'-kah*)? Lake Nyassa?

What British possession is in the southern extremity of Africa? What river crosses the northern part of Cape of Good Hope? What desert is north of Cape of Good Hope? Where is the Orange Free State? The Transvaal? Natal? Rhodesia? Lourenço Marquez? British East Africa?

Where is Mount Kilimanjaro (*kil-i-man-ja-ro'*). *This is the highest peak on the continent. It is always covered with snow.* What country is northwest of Somaliland (*so-mah'-le-land*)?

In what direction is Cape Town from Cairo? In what direction does the Nile flow?

Is more of Africa north or south of the equator? In what zone is most of Africa? What African countries lie wholly within the North Temperate zone? Which lie wholly within the South Temperate? In which zones is Egypt?



Use this map in connection with the questions which appear on the opposite page.

overflow? Among the high mountains near the sources of the Nile the rain falls in torrents. It pours into the river and fills it to overflowing.

Wheat, rice, cotton, sugar-cane, and indigo are the **chief products.** Groves of date-palms are grown near every village.

Grain, cotton, indigo, and dates are the chief **exports.** Gold-dust, ivory, and ostrich feathers are brought by caravans from the interior of Africa into Egypt.

The skins of animals are made into large bottles. The water-carriers in the picture have skin bottles filled from the river Nile.

The ruler of Egypt is called **Khedive** (*ke-deev'*), which means prince. He pays tribute to the Sultan of Turkey, but has an English official adviser.

Cairo (*ki'-ro*), the capital, is the largest city of Africa. **Alexandria** is the principal seaport.

The **Suez canal** is a part of the route now taken by vessels carrying tea and other articles from Asia to Europe. Formerly, ships sailed round Africa by way of the Cape of Good Hope in going from India to Europe.

2. The Barbary States.—Journeying westward from Cairo along the Mediterranean shores, we enter Tripoli, Tunis, Algeria, and Morocco. These are called the Barbary states, from the name of the *Berbers*, who were the native inhabitants.

Tripoli is a part of the Turkish Empire. **Fezzan,** the great oasis, belongs to Tripoli. Algeria and Tunis are possessions of France. Morocco is ruled by its own sultan.

The red cap called *fez*, worn in this region, is made by the people of Fez, a city of Morocco.

Grain, dates, and olive oil are the chief products. South of the Atlas mountains is a region called the *Land of Dates.* It is famed for the yield of this fruit.

The people of the Barbary states are Mohammedans.

For Recitation.—What are the chief products of Egypt? What are the chief products of the Barbary states?

LESSON LXV.

1. The Sahara (*sah-hah'-rah*) is the largest desert in the world. It reaches nearly across

STUDIES ON THE RELIEF MAP.

Highlands and Lowlands.—Find the highest mountains on the relief map. In what part of the continent are they? Find the highest peaks in the central part. What are their names? What parts of Africa are of a light gray color? What name is given to such parts? Trace the highland along the northern coast. In the southern extremity. What names are given to these ridges? Where is the lowest land in Africa? What color is it? Trace the light green strip along the eastern coast. How wide is it? What have you learned about the lowlands in the north of Africa? What name is given to them? What name is given to the north central lowlands?

Rivers and Lakes.—Find a group of lakes in central Africa. What river rises in one of these and flows north? Find three of its branches. What river rises in this group of lakes and flows west? Trace five of its branches. Find another river flowing east. Find a lake in north central Africa. Can you find rivers flowing into it? Does it have an outlet? Such lakes are usually salt. Can you tell why? Find a river in the western part of Africa. Trace its course. How does it change its direction? Find a river in southern Africa. How many branches does it have? What is its name?

Coastline.—Trace the northern coast of Africa. What is its direction? What is the inlet called on this coast? Trace the eastern coast. What bodies of water on this coast? Do you find many good harbors? What can you say of the western coast? What great inlet do you find there?

Heat Belts, Plants, and Animals.—In which heat belt is the northern part of Africa? What plants grow there? What kind of animals are found? Find a lake on the map crossed by the equator. What can you tell of the plants of the central part? What animals are found in this part? In which heat belt is the greater part of Africa? Which parts of the continent are in the temperate belt? What can you tell of the plants and animals found in the southern part?

Homes and People of Africa. Study these pictures in connection with the descriptions and questions on the opposite page.

Africa, and is about ten times the size of the great state of Texas.

Most of it is a vast waste of sand and pebbles, where no rain falls. Only here and there are oases, where date-palms and other fruit trees grow.

Caravans constantly cross the desert. They carry gold-dust, ivory and ostrich feathers from the interior of Africa to the coast of the Mediterranean, and take back manufactured articles.

Salt is obtained from various places in the Sahara. Caravans of 1,000 camels go to Bilmah for it.

Crossing the desert.

Let us join a **caravan** and cross the Sahara. The **camel** is the only beast of burden that we can use, because he can travel for many days without suffering for want of water.

The driver speaks to our camels and they kneel to let us mount. We now begin our journey. The camels rock us almost as if we were in a little boat on the sea. Some of us feel seasick. Soon something even worse than seasickness comes. A dark cloud is driven toward us by the wind. The air is filled with sand and dust. The sun is darkened. We are in a sandstorm.

The camels turn their backs to the wind, kneel down and put their noses close to the ground. We lie down and cover our faces with handkerchiefs. Soon the storm is over. The camels rise, we shake the sand from our clothes, and begin the journey again.

The sun is scorching hot. The sand almost burns. But as the sun goes down it grows cooler. At last it is really cold. We are thankful for shawls and blankets.

It takes us more than two months to cross the desert from Morocco to Timbuktu on camel-back.

2. The Sudan (*soo-dahn'*), which we now enter, is a wonderfully different country from the dry Sahara. It is well wooded and very productive.

Cotton and indigo grow wild, and great crops of corn and fruit are produced. Cattle and sheep are raised in vast numbers, and countless herds of antelopes roam over the plains.

The Sudan is the land of the blacks. It contains many independent negro tribes and large cities.

3. The Belgian Kongo is very productive. Bananas and rice are raised; coffee and cotton

HOMES AND PEOPLE.

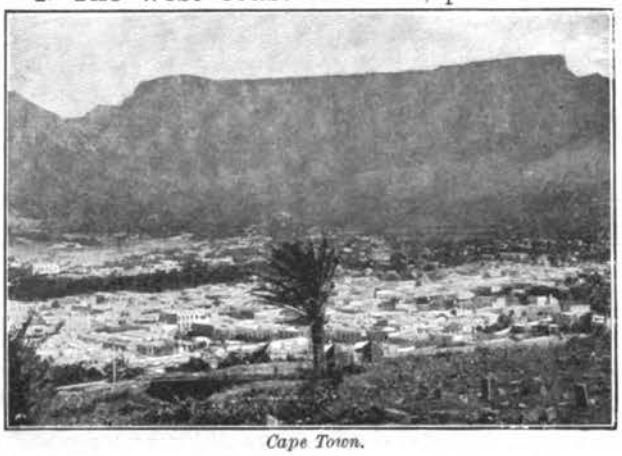
In the upper part of the picture on the opposite page we have views of people living in northern Africa. Some of them are called Moors. Their home is in the Barbary states. Can you give the names of these states? Their religion is Mohammedanism. You can see one of their churches in the picture. Five times a day a priest goes into the high tower and calls the p ople to prayer. Then every good Mohammedan washes himself and prays. The tops of their homes are flat and many people sleep on the housetops. Merchants have their shops on the sidewalk. They sit upon rugs all day selling their goods. Notice that the people dress in long, flowing robes. The women always keep their heads and faces covered when they are out of doors, so that only their eyes peep out.

In the center of the picture you may see some Arab homes, such as they build outside of the cities. You will see that it is merely a tent stretched on poles. These tents are taken down when the Arab wishes to change his home. These people get their living by keeping sheep, camels, and cattle, and they move their homes when they wish to find fresh pasture for their animals. Sometimes many Arabs bring their camels together, forming a caravan, which the merchants employ to carry goods across the desert. You may also see in the center of the picture some negro homes. These homes are built of bamboo sticks covered with leaves and grass, stuck together with mud. They do not have chimneys, as no fire is needed in this warm country. You may see a vast number of elephant tusks in the picture. Long trains of negro porters carry the ivory to the coast.

In the lower part of the picture are some people living in South Africa. The Kaffirs are native negroes, but they keep cattle and build better homes than the negroes of the Kongo. What can you tell about the Boers? In what kind of homes do they live? What use do they make of the ostrich? What other people live in South Africa? Where did they come from?

grow wild. Millions of negroes live there. They used to sell things for shells, called *cowries*, but now they exchange their coffee, ivory and rubber for cotton goods and other manufactured wares.

4. The west coast of Africa, part of which



Cape Town.

is sometimes called Guinea, is one of the hottest and most unhealthful regions in the world. The chief exports are gums, palm-oil, and rubber.

Along the coast the British, French, Germans and Portuguese have settlements, and hold the land as their own. Sierra Leone (*se-er'-rah le-o'-ne*) is a British colony for negroes. Liberia is a negro republic, founded as a home for freed negroes from the United States.

Dahomey, formerly a negro kingdom, is now controlled by France.

5. The Union of South Africa comprises the British provinces of Cape of Good Hope, Natal, the Transvaal, and the Orange Free State. This Union has two capitals. One is Cape Town, the chief port of South Africa, where the parliament meets, and the other is Pretoria, where the governor general resides.

The British also own Rhodesia and other regions in South Africa.

Sheep-raising is the chief occupation, and wool is exported. Diamonds and gold are found. **Ostriches** are raised.

6. The eastern coast is unhealthful like the western. Rubber, ivory, hides, copra, wax, and cloves are the chief exports.

The country on both sides of the Zambezi belongs to the Portuguese. The British, Germans, and Italians also have possessions on the east coast.

The island of **Madagascar** exports gold, hides, rubber, wax, and hard woods.

For Recitation.—What can you say of the Sahara? Sudan? Belgian Kongo? What are the exports of the west coast of Africa? Of the east coast? Of South Africa?

Kimberley, the diamond city. The entrance to a mine is shown on the right.

REVIEW OF AFRICA.

Countries.—*Where is it?*—Egypt. Abyssinia. Morocco. Algeria. Tunis. Tripoli. Sudan. Liberia. Sierra Leone. Belgian Kongo. Cape of Good Hope. Natal. Orange Free State. Transvaal. Rhodesia. Mozambique. British East Africa.

Islands.—*Near what part of the coast?*—Madeira. Canary. Madagascar. St. Helena.

Mountains.—*Where are they, and in what direction do the ranges extend?*—Atlas. Kenia. Kilimanjaro. Ruwenzori.

Seas, Gulf.—*Where is it?*—Mediterranean Sea. Red Sea. Gulf of Guinea.

Straits and Channel.—*Connects what waters? Separates what lands?*—Gibraltar. Bab-el-Mandeb. Mozambique Channel.

Rivers.—*Where does it rise? Into what does it flow?*—Nile. Niger. Kongo. Zambezi.

Lakes.—*Where is it?*—Victoria. Albert. Tanganyika. Nyassa. Tchad.

Cities.—*In what country?*—Cairo. Tripoli. Tunis. Algiers. Morocco. Fez. Alexandria. Sokoto. Gondar. Boma. Cape Town. Lourenço Marquez. Pretoria. Freetown. Tananarivo. Monrovia. Pietermaritzburg.

AUSTRALIA.

LESSON LXIII.

1. Australia.—Let us sail from Madagascar across the Indian ocean and visit Australia. This

A street in Melbourne, Victoria.

is so large a body of land that we call it a continent. It is nearly the size of the United States.

If we look at a globe, we shall see that Australia is on the other side of the world from us. For this reason, when it is night here it is day there.

Australia is different from our continent in another way. We are north of the equator. It is south. Be-

Transporting wool, Australia.

cause of this, when it is winter here it is summer there. Christmas day there comes in midsummer.

2. The Climate of Australia is generally hot. The eastern portion of the continent is the best watered and the most fertile. The interior is almost rainless, and much of it is an arid waste.

3. The Plants and Animals are very remarkable. Most of the plants are evergreens. Some of them shed bark instead of leaves.

The **ferns** grow to the size of trees, and nettles are sometimes forty feet in height.

4. The Natives of Australia are black-skinned, degraded savages. They are fast dying out.

5. The Commonwealth of Australia, a part of the British Empire, consists of five states and the island of Tasmania.

Australia is famous for its sheep, and produces more wool than any other part of the world.

Gold, copper, and tin are found in great

Gathering the kauri gum in New Zealand.

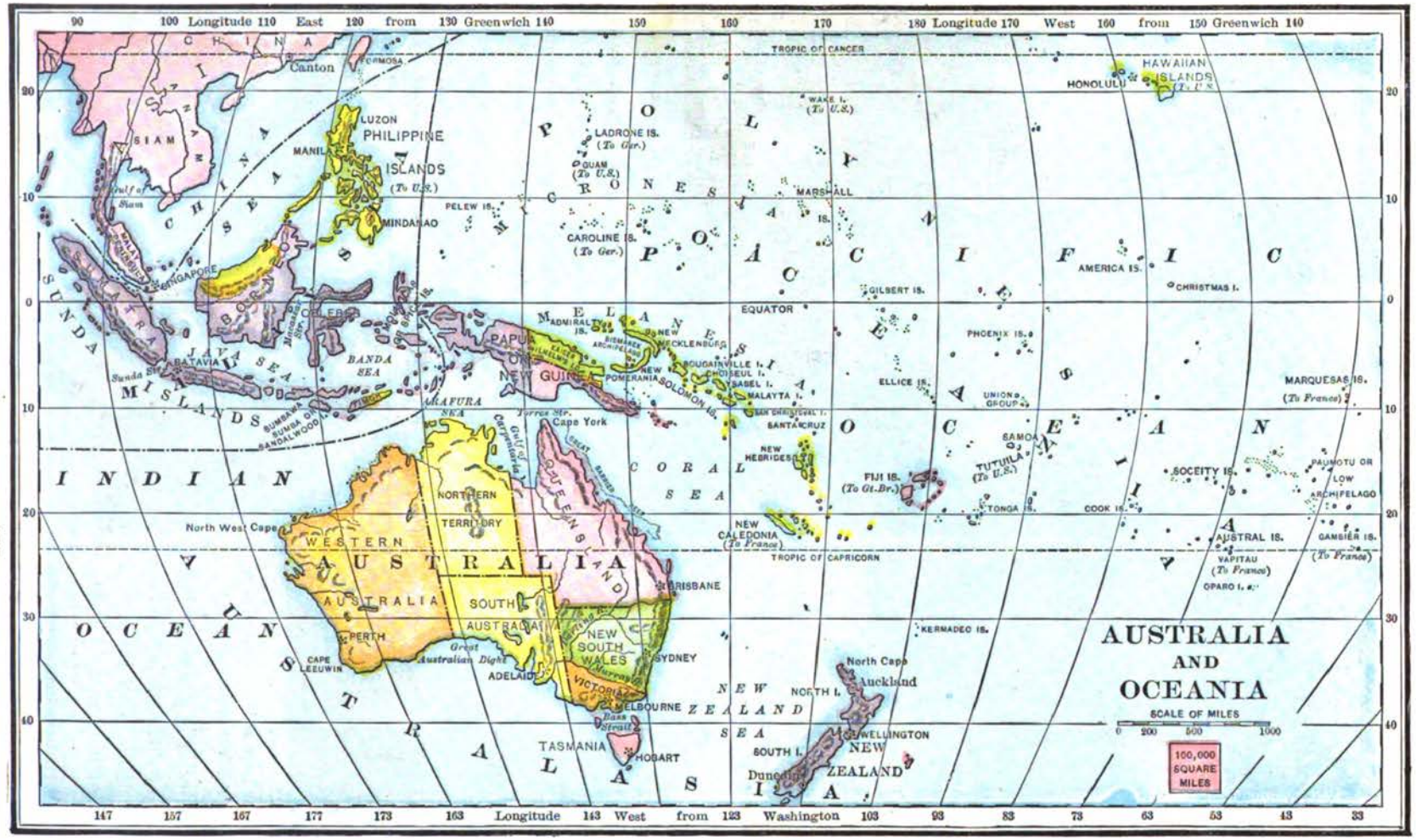
abundance, and many of the settlers are miners.

The chief **exports** are wool, hides and gold.

The largest cities are **Melbourne**, the temporary capital of the Commonwealth; and **Sydney**.

6. New Zealand also belongs to England. It is famed for its sheep, its forests, its **flax** and **kauri** (*kow'-re*) **gum.** The flax grows nearly twenty feet

A sheep ranch in New Zealand.



MAP STUDIES.

In what direction is Australia from Asia? In what direction is it from the United States?

Use the scale and measure the distance from Honolulu to Sydney. From Singapore to Melbourne.

What ocean is southwest of Australia? What ocean is east? What sea is off the east coast? What gulf is on the north?

What bight is on the south? (*Bight means bay.*)

Name the two important rivers of Australia. Where is Melbourne? Sydney? Brisbane? Adelaide?

What island is south of Australia? What group of islands is southeast?

What large island is north of Australia?

Where is Java? Where is Sumatra? What strait lies between them?

What large island is north of Java? What islands are northeast of Borneo?

What island is south of the Philippines? What islands are between New Guinea and the Philippines?

Where are the Ladrone islands?

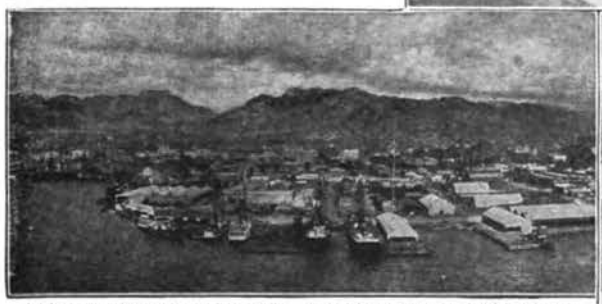
Guam (gwahm), *the largest of these islands, belongs to the United States.*

Where are the Fiji islands? They belong *to Great Britain.*

high. The gum is dug from the ground. It is used in making varnish. **Sheep-raising** and **mining** are leading occupations, as in Australia.

7. Oceania.—The Pacific ocean is dotted with islands. Taken together they are called Oceania.

8. Coral Islands.—Many of these islands are made by the little creatures called **coral polyps.**



Honolulu, the Hawaiian capital, has been built by Americans, and looks like our cities.

This street in Manila shows queer houses with tile roofs. The country scene shows houses of natives. Notice the bamboo bridge, fence, and houses, and the banana tree growing wild.

They are very soft, and look like tiny drops of jelly. They have something like bone inside of them, very small, but hard. These bony parts are built up into a great pile, one on top of the other, like so many very little bricks. Each polyp lays his little brick on top of the one below, and then he dies. His soft part is now washed away by the sea. His hard little brick remains in its place.

Another polyp now begins to build himself upon the bones of his dead friend, and so they go on and on, until, after a long, long time, the pile is so high that it reaches nearly to the top of the water. Sand and shells are wafted to it, and at length it becomes an island.

9. The Inhabitants of Oceania are dark-skinned. Some are Malays, others are Negroes. They are very fine swimmers and boatmen.

The bread-fruit is the principal food on many islands. When baked it is like bread.

Scene in Java.

10. Principal Islands.—The largest islands of Oceania are near the continent of Asia, and are often called the East India Islands.

Java (*jah'-vah*) is the finest of them all. It belongs to the Dutch. It is one of the great coffee-yielding countries of the world.

Sumatra (*soo-mah'-tra*), **Celebes** (*sel'-e-beez*) and the **Spice Islands** are famed for cinnamon, nutmegs, and other spices; **Borneo** for gutta-percha; **New Guinea** for pearls.

Sumatra and Celebes are chiefly under the control of the New Netherlands. The Dutch and the English have possession of Borneo; and New Guinea is divided among the English, the Dutch, and the Germans.

The **Philippines,** famed for Manila hemp, formerly governed by Spain, now belong to the United States. Manila is the capital.

The **Hawaiian Islands** are now a territory of

the United States. Most of the land is owned by Americans. The natives are civilized. There are schools and churches. The products of the islands are sugar, rice, and coffee. **Honolulu** is the capital.

For Recitation.—For what is Australia noted? What are the chief products of New Zealand? Name the chief exports of the East India islands. What islands in the Pacific belong to the United States?

LATITUDE AND LONGITUDE.

In measuring the length of your schoolroom you find yards and feet very convenient measures. For measuring the distance from one town to another miles are convenient. But for measuring great distances on the surface of the earth another measure is used called **degree.**

Let me explain what a degree is. If you should travel round the earth from east to west, you would go in a ring or circle. If you went round it from north to south, and from south to north again, you would also go in a circle.

Such circles are not really drawn on the surface of the earth. We only imagine them, and they are called **imaginary circles.** They are represented by the lines that you see on the map of the hemispheres, and on other maps. These lines are drawn from north to south, and from east to west. Those drawn from north to south are called **meridians.** Those from east to west are called **parallels.**

Every circle is supposed to be made up of 360 equal parts. Each one of the parts is called a **degree.**

Distance north or south is called **latitude.** Distance east or west is called **longitude.**

In measuring all distances, we need, of course, a line or a point from which to reckon.

We measure longitude from the meridian that passes through Greenwich, near London. We reckon it east and west halfway round the earth.

The starting line for measuring latitude is the equator, and, therefore, when we speak of the latitude of a place, we mean that it is so many degrees north or south of the equator.

On page 124 you will see the meridians drawn across the map from north to south. On the top margin find the meridian numbered 0. This is the meridian of Greenwich. All places through which this meridian passes are said to have no longitude. This is only another way of saying that they are neither east of the line nor west of it. The next meridian west of this line of no latitude is marked 10. This number means that all places on this meridian are 10 degrees westward of the Greenwich meridian.

Now look to the east of the Greenwich meridian on map, page 124. You see a number of meridians here also. Each one is 10 degrees from its neighbor. They might be drawn one or two or any number of degrees apart.

Look again on map on page 124, and notice the *parallels.* They also are drawn 10 degrees apart, though they, too, might be drawn any other number of degrees apart.

Now suppose I should say that a ship had sailed to some islands in the Pacific ocean that are 180 degrees from Greenwich. Looking at the map, you would see that the meridian of 180 passes through two groups of islands, the Fiji and the Aleutian. But here you would be puzzled. How could you tell whether I meant the Aleutian or the Fiji islands. I must tell you the latitude as well as the longitude. If I say a ship sailed to the islands in the Pacific that are 180 degrees westward from Greenwich, and nearly 20 degrees south of the equator, you can find the exact place on the map, and you see that the islands meant are the Fiji islands.

Just so any place whatever may be found, if we know its latitude and longitude.

TOPICAL REVIEW.

Topical Review.—Let pupils write or tell what they know about any one of the following topics:

Direction — Measurement of distance — Maps — Shape of earth—Forms of land and of water—Rotation of earth —Revolution of earth—Zones—Occupations of men—Government—Religion—Races of men—Conditions of society.

Early settlement of North America—Surface of the United States—Occupations in the United States—Great crops of different portions of United States—The great cities (Seaports—Inland—Lake Ports).

The climate of Europe—Products—Manufactures—Exports—Imports. The products of Asia—Its exports —Animals, wild and useful. Climate and products of Africa—Exports. Plants and animals of Australia. Products and exports of Oceania.

SIZE AND POPULATION

SUMMARY.

Length of the earth's axis (miles)		7,900
Length of the equator	"	24,900
Earth's Surface (sq. miles)		**196,900,000**
Pacific Ocean	" "	71,000,000
Atlantic Ocean	" "	34,000,000
Indian Ocean	" "	28,000,000
Antarctic Ocean	" "	7,500,000
Arctic Ocean	" "	4,000,000
The Sea	" "	**144,500,000**

	Area in Sq. Miles.	Population.
Asia	17,056,000	909,199,000
Africa	11,512,000	142,774,000
North America	9,431,000	122,713,000
South America	6,856,000	38,625,000
Europe	3,842,000	402,125,000
Australia, etc.	3,710,000	6,617,000
The Land	**52,407,000**	**1,622,053,000**

ASIA.

Russia in Asia	6,656,000	20,950,000
Chinese Empire	4,301,000	426,131,000
Japanese Empire	177,000	50,006,000
Korea	84,000	9,670,000
British India, etc.	1,918,000	299,422,000
Other British Possessions	20,000	1,012,000
Nepal, Bhutan	73,000	3,200,000
Portuguese India, etc.	1,000	651,000
Siam	245,000	6,320,000
Fr. Indo-China, etc.	256,000	15,922,000
Afghanistan	241,000	4,550,000
Persia	635,000	9,000,000
Turkey in Asia	706,000	17,178,000
Arabia	955,000	1,950,000
East Indies	788,000	43,237,000
Total	17,056,000	909,199,000

AFRICA.

Morocco (including parts of the Sahara)	176,000	7,000,000
Algeria (including parts of the Sahara)	344,000	4,802,000
Tunis (including parts of the Sahara)	65,000	1,800,000
Tripoli (including parts of the Sahara)	406,000	1,000,000
Egypt (including parts of the Sahara)	248,000	11,287,000
Sahara, remaining part	2,461,000	791,000
Abyssinia	312,000	8,330,000
Eritrea	42,000	331,000
British E. Africa	433,000	4,908,000
Somaliland, etc.	214,000	603,000
Sudan	2,972,000	57,675,000
Belgian Kongo	927,000	19,000,000
Angola	491,000	3,840,000
Mozambique	296,000	2,300,000
Ger. E. Africa	374,000	6,855,000
Ger. S. W. Africa	318,000	210,000
The Transvaal	114,000	1,345,000
Orange Free State	48,000	387,000
C. of Good Hope	277,000	2,410,000
Rhodesia	408,000	1,350,000
Other Br. S. Afr.	348,000	2,503,000
African Islands	238,000	4,047,000
Total	11,512,000	142,774,000

NORTH AMERICA.

	Area in Sq. Miles.	Population.
Greenl'd and Icel'd	877,000	91,000
British America	3,809,000	5,600,000
United States	3,089,000	91,972,000
Alaska	591,000	65,000
Mexico	767,000	13,606,000
Central America	206,000	4,422,000
West Indies	92,000	6,957,000
Total	9,431,000	122,713,000

SOUTH AMERICA.

Colombia	466,000	3,917,000
Venezuela	364,000	2,445,000
Guiana, Brit.	95,000	296,000
Guiana, Dutch	50,000	87,000
Guiana, French	30,000	33,000
Brazil	3,301,000	14,334,000
Ecuador (incl. Galapagos Islands)	119,000	1,272,000
Peru	439,000	4,586,000
Bolivia	442,000	1,766,000
Chile	293,000	3,255,000
Argentina	1,083,000	4,957,000
Paraguay	98,000	636,000
Uruguay	69,000	1,039,000
Islands	7,000	2,000
Total	6,856,000	38,625,000

EUROPE.

British Possessions	121,000	41,824,000
France	207,000	39,273,000
Spain	192,000	18,235,000
Portugal	36,000	5,424,000
Belgium	11,000	6,694,000
Netherlands	13,000	5,853,000
Denmark	15,000	2,605,000
German Empire	211,000	60,888,000
Switzerland	16,000	3,325,000
Austria-Hungary	261,000	47,153,000
Italy	111,000	32,487,000
Sweden	173,000	5,136,000
Norway	124,000	2,240,000
Russia in Europe	2,113,000	109,726,000
Turkey in Europe	65,000	5,897,000
Bulgaria	37,000	3,744,000
Crete	3,000	310,000
Roumania	51,000	5,957,000
Servia	19,000	2,494,000
Montenegro	4,000	228,000
Greece and islands	25,000	2,632,000
Spitzbergen, etc.	34,000	
Total	3,842,000	402,125,000

AUSTRALIA, Etc.

Australia Com.	2,973,000	3,983,000
New Zealand	105,000	937,000
New Guinea Gr.	311,000	700,000
Hawaiian Islands	6,000	192,000
Other islands	61,000	805,000
South Polar Region	254,000	
Total	3,710,000	6,617,000

UNITED STATES.

Population according to the Federal Census of 1910.

	Sq. Miles.	Population.
Alabama	51,998	2,138,093
Arizona	113,956	204,354
Arkansas	53,335	1,574,449
California	158,297	2,377,549
Colorado	103,948	799,024
Connecticut	4,965	1,114,756
Delaware	2,370	202,322
District of Columbia	70	331,069
Florida	58,666	752,619
Georgia	59,265	2,609,121
Idaho	84,313	325,594
Illinois	56,665	5,638,591
Indiana	36,354	2,700,876
Iowa	56,147	2,224,771
Kansas	82,158	1,690,949
Kentucky	40,598	2,289,905
Louisiana	48,506	1,656,388
Maine	33,040	742,371
Maryland	12,327	1,295,346
Massachusetts	8,266	3,366,416
Michigan	57,980	2,810,173
Minnesota	84,682	2,075,708
Mississippi	46,865	1,797,114
Missouri	69,420	3,293,335
Montana	146,572	376,053
Nebraska	77,520	1,192,214
Nevada	110,690	81,875
New Hampshire	9,341	430,572
New Jersey	8,224	2,537,167
New Mexico	122,634	327,301
New York	49,204	9,113,614
North Carolina	52,426	2,206,287
North Dakota	70,837	577,056
Ohio	41,040	4,767,121
Oklahoma	70,057	1,657,155
Oregon	96,699	672,765
Pennsylvania	45,126	7,665,111
Rhode Island	1,248	542,610
South Carolina	30,989	1,515,400
South Dakota	77,615	583,888
Tennessee	42,022	2,184,789
Texas	265,896	3,896,542
Utah	84,990	373,351
Vermont	9,564	355,956
Virginia	42,627	2,061,612
Washington	69,127	1,141,990
West Virginia	24,170	1,221,119
Wisconsin	56,066	2,333,860
Wyoming	97,914	145,965
Part Great Lakes	61,730	
Total Main Body	*3,088,519*	*91,972,266*

Outlying Territory, Etc.

Ter. of Alaska	590,884	64,356
Ter. of Hawaii	6,449	191,909
Porto Rico	3,435	1,118,012
Philippine Is. ('03)	115,026	7,635,426
Tutuila, etc.	77	(?) 62,423
Guam	210	
Canal Zone	474	
Persons in the military and naval service of the U. S. stationed abroad		55,608
Total Outlying	*716,555*	*9,127,734*
Grand Total	*3,805,074*	*101,100,000*

POPULATION OF IMPORTANT CITIES IN THE UNITED STATES, 1910.

Akron, Ohio	69,067	Duluth, Minn.	78,463	Memphis, Tenn.	131,105	Salt Lake City, Utah	92,777
Albany, N.Y.	100,253	East St. Louis, Ill.	58,547	Milwaukee, Wis.	373,857	San Antonio, Tex.	96,614
Atlanta, Ga.	154,839	Elizabeth, N.J.	73,409	Minneapolis, Minn.	301,408	San Francisco, Cal.	416,912
Augusta, Ga.	41,040	Erie, Pa.	66,525	Mobile, Ala.	51,521	Savannah, Ga.	65,064
Baltimore, Md.	558,485	Evansville, Ind.	69,647	Montgomery, Ala.	38,136	Schenectady, N.Y.	72,826
Birmingham, Ala.	132,685	Fall River, Mass.	119,295	Nashville, Tenn.	110,364	Scranton, Pa.	129,867
Boise, Ida.	17,358	Fort Wayne, Ind.	63,933	Newark, N.J.	347,469	Seattle, Wash.	237,194
Boston, Mass.	670,585	Fort Worth, Tex.	73,312	New Bedford, Mass.	96,652	Sioux City, Iowa	47,828
Bridgeport, Conn.	102,054	Galveston, Tex.	36,981	New Haven, Conn.	133,605	Somerville, Mass.	77,236
Brockton, Mass.	56,878	Grand Rapids, Mich.	112,571	New Orleans, La.	339,075	Spokane, Wash.	104,402
Buffalo, N.Y.	423,715	Harrisburg, Pa.	64,186	New York, N.Y.	4,766,883	Springfield, Ill.	51,678
Burlington, Vt.	20,468	Hartford, Conn.	98,915	Norfolk, Va.	67,452	Springfield, Mass.	88,926
Butte, Mont.	39,165	Hoboken, N.J.	70,324	Oakland, Cal.	150,174	Superior, Wis.	40,384
Cambridge, Mass.	104,839	Holyoke, Mass.	57,730	Oklahoma, Okla.	64,205	Syracuse, N.Y.	137,249
Camden, N.J.	94,538	Houston, Tex.	78,800	Omaha, Neb.	124,096	Tacoma, Wash.	82,972
Charleston, S.C.	58,833	Indianapolis, Ind.	233,650	Paterson, N.J.	125,600	Tampa, Fla.	37,782
Charlotte, N.C.	34,014	Jackson, Miss.	21,262	Peoria, Ill.	66,950	Toledo, Ohio	168,497
Chattanooga, Tenn.	44,604	Jacksonville, Fla.	57,699	Philadelphia, Pa.	1,549,008	Topeka, Kan.	43,684
Chicago, Ill.	2,185,283	Jersey City, N.J.	267,779	Pittsburg, Pa.	533,905	Trenton, N.J.	96,815
Cincinnati, Ohio	364,463	Kansas City, Kan.	82,331	Portland, Me.	58,571	Troy, N.Y.	76,813
Cleveland, Ohio	560,663	Kansas City, Mo.	248,381	Portland, Ore.	207,214	Utica, N.Y.	74,419
Colorado Springs, Col.	29,078	Knoxville, Tenn.	36,346	Providence, R.I.	224,326	Washington, D.C.	331,069
Columbus, Ohio	181,548	Lawrence, Mass.	85,892	Pueblo, Col.	44,395	Waterbury, Conn.	73,141
Covington, Ky.	53,270	Lincoln, Neb.	43,973	Reading, Pa.	96,071	Wheeling, W.Va.	41,641
Dallas, Tex.	92,104	Little Rock, Ark.	45,941	Richmond, Va.	127,628	Wichita, Kan.	52,450
Davenport, Iowa	43,028	Los Angeles, Cal.	319,198	Rochester, N.Y.	218,149	Wilkes-Barre, Pa.	67,105
Dayton, Ohio	116,577	Louisville, Ky.	223,928	Sacramento, Cal.	44,696	Wilmington, Del.	87,411
Denver, Col.	213,381	Lowell, Mass.	106,294	Saginaw, Mich.	50,510	Wilmington, N.C.	25,748
Des Moines, Iowa	86,368	Lynn, Mass.	89,336	St. Joseph, Mo.	77,403	Worcester, Mass.	145,986
Detroit, Mich.	465,766	Macon, Ga.	40,665	St. Louis, Mo.	687,029	Yonkers, N.Y.	79,803
Dubuque, Iowa	38,494	Manchester, N.H.	70,063	St. Paul, Minn.	214,744	Youngstown, Ohio	79,066

POPULATION OF IMPORTANT FOREIGN CITIES.

	Latest Census.				
Alexandria, Egypt	332,000 ('07)	Constantinople, Turkey	1,125,000	Montreal, Canada	268,000 ('01)
Amsterdam, Netherlands	567,000 ('09)	Copenhagen, Denmark	427,000 ('07)	Moscow, Russia	989,000 ('97)
Antwerp, Belgium	314,000 ('08)	Dublin, Ireland	291,000 ('01)	Naples, Italy	564,000 ('01)
Athens, Greece	168,000 ('07)	Edinburgh, Scotland	317,000 ('01)	Odessa, Russia	405,000 ('97)
Bangkok, Siam	400,000	Glasgow, Scotland	736,000 ('01)	Paris, France	2,763,000 ('06)
Belfast, Ireland	349,000 ('01)	Hague, Netherlands	273,000 ('09)	Peking, China	1,000,000
Berlin, Germany	2,040,000 ('05)	Hamburg, Germany	803,000 ('05)	Quebec, Canada	69,000 ('01)
Birmingham, England	522,000 ('01)	Havana, Cuba	297,000 ('07)	Rio de Janeiro, Brazil	811,000 ('06)
Bombay, India	776,000 ('01)	Hongkong, Asia	320,000 ('06)	Rome, Italy	463,000 ('01)
Bordeaux, France	252,000 ('06)	Johannesburg, Transvaal	159,000 ('04)	St. Petersburg, Russia	1,267,000 ('97)
Brussels, Belgium	638,000 ('08)	Lisbon, Portugal	356,000 ('00)	Santiago, Chile	408,000 ('07)
Bucharest, Roumania	282,000 ('99)	Liverpool, England	685,000 ('01)	Shanghai, China	651,000 ('04)
Budapest, Austria-Hungary	732,000 ('00)	London, England	6,581,000 ('01)	Stockholm, Sweden	301,000 ('00)
Buenos Aires, Argentina	1,189,000 ('08)	Lyons, France	472,000 ('06)	Sydney, New South Wales	482,000 ('01)
Cairo, Egypt	655,000 ('07)	Madras, India	509,000 ('01)	Tashkend, Rus. Turkestan	157,000 ('97)
Calcutta, India	1,127,000 ('01)	Madrid, Spain	540,000 ('00)	Teheran, Persia	280,000
Canton, China	900,000 ('04)	Manchester, England	544,000 ('01)	Tokyo, Japan	2,186,000 ('08)
Cape Town, C. of Good Hope	78,000 ('04)	Marseilles, France	518,000 ('06)	Venice, Italy	152,000 ('01)
Christiania, Norway	228,000 ('00)	Melbourne, Victoria	496,000 ('01)	Vienna, Austria-Hungary	1,675,000 ('00)
Cologne, Germany	429,000 ('05)	Mexico, Mexico	345,000 ('00)	Yokohama, Japan	394,000 ('08)
		Milan, Italy	493,000 ('01)	Zurich, Switzerland	150,000 ('00)

MOUNTAINS AND PLATEAUS.

	Av. Elev. Feet.
Mount Everest	29,000
Himalaya Mountains	19,000
Andes Mountains	13,000
Caucasus Mountains	10,000
Rocky Mountains	10,000
Atlas Mountains	9,000
Alps Mountains	8,500
East Australian Mountains	5,000
Appalachian Mountains	2,500
Plateau of Tibet	15,000
Plateau of Bolivia	12,500
Rocky Mountain highland —	
in the United States	5,000
in Mexico	7,500
Abyssinian highland	6,500
Plateau of Iran	5,000
Desert of Gobi	3,500
Plateau of Guiana	2,000
Brazilian plateau	2,000

RIVERS AND THEIR BASINS.

	Area of Basin, Sq. Mi.	Mi. Long.		Area of Basin, Sq. Mi.	Mi. Long.
Amazon, S. America	2,320,000	3,400	Mississippi proper	1,250,000	2,600
Amur, Asia	780,000	2,700	Missouri	527,000	2,900
Arkansas, U.S.	189,000	2,000	Nelson-Saskatchewan, Can.	470,000	1,900
Colorado, U.S.	230,000	1,000	Niger, Africa	1,000,000	2,900
Columbia, N. America	290,000	1,400	Nile, Africa	1,300,000	3,900
Danube, Europe	320,000	1,800	Ob, Asia	1,100,000	3,000
Dnieper, Russia	197,000	1,300	Ohio, U.S.	202,000	1,260
Don, Russia	170,000	1,100	Orange, Africa	270,000	1,200
Euphrates, Asia	490,000	2,000	Orinoco, S. America	425,000	1,500
Ganges, India	600,000	1,800	Plata, S. America	1,150,000	2,500
Hoang, Chinese Empire	390,000	2,800	Rhine, Europe	87,000	810
Hudson, U.S.	13,000	300	Rio Grande, N. America	230,000	1,800
Indus, Asia	360,000	1,900	St. Lawrence, N. America	565,000	2,100
Kongo, Africa	1,500,000	2,800	São Francisco, Brazil	210,000	1,800
Lena, Siberia	900,000	2,800	Volga, Russia	590,000	2,300
Loire, France	47,000	600	Yangtze, Chin. Empire	690,000	3,100
Mackenzie, Canada	680,000	2,100	Yenisei, Asia	1,500,000	3,000
Mekong, Asia	280,000	2,600	Yukon, N. America	380,000	2,000
Mississippi-Missouri, U.S.	1,250,000	4,200	Zambezi, Africa	580,000	1,600

INDEX AND PRONOUNCING VOCABULARY

KEY. — VOWELS: ā in lāte, ă in făt, â in câre, ä in färr, à in làst, ę in fęll, ẹ in wẹs, ę in finęl, au in author; ē in mē; ĕ in mĕt, bĕrry, ę in vęll, ō in tōrm, ọ in novęl; ī in fīne, ĭ in tĭn, ī in police; ō in nōte, ŏ in nŏt, ó in són, ô in fôr, ọ in dọ, ū in tūne, ŭ in nŭt, ụ in rụde (= ọ), ụ in fụll, ua = wa, ue = we; ȳ in mȳ, ў in hўmn. CONSONANTS: ç in çent, maçhine, c in can; ġ in ġem, g in ġet; n̄ = ng; ș = z; th in thine; x̄ = gz. *Italic letters are silent.*

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